

GENERAL STUDIES

A Textbook For Class XII



ASSAM STATE SCHOOL EDUCATION BOARD, DIVISION-II
Bamunimaidam, Guwahati-21

GENERAL STUDIES : A textbook on the subject 'General Studies' for Class XII in English Version, prepared and approved by Assam State School Education Board, Division-II (Erstwhile Assam Higher Secondary Education Council) and published by HD International Educational Publishers on behalf of ASSEB, Division-II.

First Edition : 2026

© Assam State School Education
Board, Division-II, 2026
(Erstwhile, Assam Higher Secondary Education Council)

Price : ₹ 170.00

Text Printed on 70 GSM
Cover Page 170 GSM

Published by the Secretary, Assam State
School Education Board, Division-II,
Bamunimaidam, Guwahati-21

Layout Setting :
BH Group, Panbazar, Guwahati-1

Printed at :
Aurora Fine Arts
Industrial Estate, Bye Lane No. 5
Bamunimaidam, Guwahati-21

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On behalf of

**Assam State School Education Board, Division-II
Bamunimaidam, Guwahati-21**

Publisher

HD International Educational Publishers
UB Plaza, HB Road, Panbazar, Guwahati-781001

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Dr. Himanta Biswa Sarma



মুখ্যমন্ত্রী, অসম
Chief Minister, Assam



MESSAGE

It gives me immense happiness to learn that the Assam State School Education Board is introducing General Studies as a new compulsory subject for students of Class XII. This timely and forward-looking initiative will help prepare students not only for academic success but also for meaningful participation in an increasingly competitive and evolving world.

In line with the vision of the National Education Policy 2020, education must go beyond textbooks and examinations. It should equip learners with critical thinking, life skills, employability, innovation and values. In this context, the introduction of General Studies is a commendable step towards nurturing well-rounded, skilled and responsible young citizens.

I am pleased to note that the subject has been thoughtfully designed to provide career guidance and model question papers for various national and state-level recruitment and entrance examinations. Its focus on mental well-being, soft skills, financial literacy, core values and practical life skills makes it especially relevant in today's dynamic environment.

I am confident that this subject will help students discover their potential, strengthen their character and prepare them for the opportunities and challenges ahead.

I congratulate the Assam State School Education Board and all those associated with this valuable initiative. I sincerely hope that this subject will serve as a meaningful guide for students and contribute to building a skilled, enlightened and self-reliant generation in Assam.

I extend my best wishes for the success of this endeavour.

(Dr. Himanta Biswa Sarma)

R. C. Jain, IAS (Retd.)
Chairman



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From the Chairman's Desk

The National Curriculum Framework for School Education (NCF-SE) 2023 envisions General Studies as a multidisciplinary subject that nurtures the affective dimensions of learning, including values, attitudes, awareness, and responsible citizenship. Rather than focusing solely on academic knowledge, it seeks to connect education with social, cultural, environmental, and real-world concerns. Accordingly, in the suggested curriculum for the Senior Secondary (XI-XII) stage, General Studies has been retained as a mandatory subject for internal assessment.

It gives me immense pleasure to present this comprehensive General Studies textbook to the students in alignment with the vision and objectives of NCF-SE 2023. In today's rapidly changing world, marked by technological advancement and global interconnectedness, education must go beyond the acquisition of facts. True education contributes to the holistic development of body, mind, and spirit while fostering character, wisdom, and life skills.

This book has been designed to provide students with an integrated understanding of history, culture, geography, economy, science, ethics, and contemporary issues. It aims to encourage social responsibility, environmental sensitivity, respect for diversity, and a constructive approach towards the challenges of modern society.

General Studies forms the foundation of informed and responsible citizenship. The topics in this book are carefully curated to promote critical thinking, scientific temper, and analytical ability, while also helping students prepare for various competitive examinations. Emphasis has been laid on meaningful learning rather than rote memorisation, enabling learners to appreciate individuality and realise their own potential.

I sincerely hope that this book will serve the intended purpose and contribute meaningfully to the intellectual and personal growth of students.

R. C. Jain, IAS (Retd.)
Chairman

Bamunimaidam, Guwahati-781021

Assam State School Education Board

Rukma Gohain Baruah
Vice-Chairman



**ASSAM STATE SCHOOL
EDUCATION BOARD (ASSEB)**
Bamunimaidam, Guwahati-781021

Message from the Vice-Chairman

General Studies in education is vital for developing critical thinking, communication, and intellectual flexibility by exposing students to diverse disciplines beyond their specialization. It fosters well-rounded individuals capable of adapting to a changing world, building empathy, and applying interdisciplinary knowledge to solve complex, real-world problems.

As per the National Curriculum Framework for School Education (NCFSE) 2023, which implements the vision of NEP 2020, General Studies is incorporated as a **vital, mandatory component of internal assessment** rather than a traditional academic subject. It acts as an integrative and multidisciplinary area aimed at holistic development, covering value-oriented, social, and practical life skills. Keeping in view the motto suggested by NCFSE, Assam State School Education Board has offered the subject General Studies from the academic 2026-2027 in class XII.

To materialize the suggestive guideline of NCFSE, ASSEB has developed the textbook as a guiding handbook for students. The textbook is not only a tool for appearing the internal assessment, but a ladder to ponder in the present day world which our students will have to face after completing their education in secondary stage.

Hope this textbook will be able to bring a ray of hope of expectation.

(Rukma Gohain Baruah)
Vice-Chairman

Bamunimaidam
Guwahati-781021

Assam State School Education Board, Division-II

Foreword

The subject of General Studies had been included in the scheme of studies of Assam State School Education Board w.e.f. 2025-2026 academic session in pursuance of the National Education Policy-2020. General Studies is enumerated as a **multi-disciplinary approach** or a **component of holistic education** that integrates various disciplines to foster critical thinking, general aptitude, social awareness, and civic responsibility.

The subject General Studies is a very significant component of the overall curriculum as it equips students with the ability to grow an integrated personality. It will be assessed internally by the institutions. Mark obtained in the subject in internal examination will be reflected as Grade in the marks-sheet cum certificate of HS Final Examination.

In 2026-27, the subject has been introduced for Class XII. This textbook **“General Studies for class XII”** has been developed with the help of experts, to materialize the objectives of the syllabus and curriculum. The ASSEB, Div-II has extended heartfelt thanks and gratitude to all the experts of the textbook development committee for their dedication towards this noble cause. Also my heartfelt thanks go to the persons, associated with the publication of the textbook.

ASSEB, Div-II welcomes comments, suggestions and feedback from all corners which will enable us to undertake further revision and refinement of the textbook. Utmost care has been taken in preparing the textbook, however, if any fault is detected, initiative will be taken to rectify accordingly.

(Sri Narnarayan Nath, ACS)

Secretary

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GENERAL STUDIES

SYLLABUS FOR CLASS-XII

RATIONALE

Secondary education is the sculpting period for youngsters that eventually leads to a better country. Therefore, it's pertinent to realise the importance of secondary education and pick the best curricula for the secondary stages.

Secondary education is a crucial stage in a student's life, as it serves as a bridge between middle stage and higher stage of learning or vocational training. It plays a vital role in developing a student's academic, personal, and social skills, ultimately preparing them for future success.

The study at the Secondary stage in classes 11&12 are compartmentalized through the studying of selected specialised subjects as required for higher studies in a specific direction. The compartmentalized studies couldn't provide much exposure to some vital disciplines/areas of study that are not covered in their specialized field. To overcome these issues, ASSEB, Div -II has decided to offer **General Studies** as a compulsory audit subject for the students of all streams. The subject will be assessed internally and Grade will be awarded which will be reflected in the marks-sheet.

The aim of introducing General Studies in Class XII is to broaden students' perspectives, develop critical thinking, and foster social and cultural awareness and develop a holistic understanding of various subjects beyond their chosen specializations delivering through a multidisciplinary approach. It will develop communication skills, promote civic responsibility, encouraging independent learning, personal and social development and penetrates seeds for life-long learning. By covering a range of subjects and skills, General Studies aims to give students a broad base of knowledge and the ability to apply it in real-world day to day situations. Further, it will stimulate constructive thinking about possible forms in advanced courses. The designed course curricula will encourage students to become responsible citizens by raising awareness about social issues, promoting scientific temper, and appreciating cultural heritage.

The study of Environmental and General Studies will also motivate and orient them towards appearing in competitive examinations. It definitely widens up the horizons and develops the personal interests in students with a focus on Cultural, Social and Scientific domains. In essence, it is expected that the studying of **General Studies** in secondary stage is a valuable investment in a student's overall development, which will orient towards academic success, future careers, and a fulfilling life.

Importance of studying the subject "**General Studies**"

1. Developing a Holistic Understanding:

- 'General Studies' exposes students to a wide range of subjects, including social sciences, humanities, Mathematics and computational thinking, and current affairs, which helps them observe the interconnectedness of different fields of knowledge.
- It encourages students to go beyond their specialized subjects and develop a broader perspective on various aspects of life, society, and the world.

2. Enhancing Critical Thinking and Problem-Solving:

- By analyzing different perspectives and engaging with complex issues, students develop critical thinking skills, which are essential for making informed decisions and solving problems effectively.
- The subject encourages students to question, analyze, and evaluate information, fostering intellectual curiosity and a deeper understanding of the world around them.

3. Preparing for Higher Education and Careers:

- Many competitive exams and higher education courses require a strong foundation in general knowledge and analytical skills.
- **General Studies** equips students with the knowledge and skills necessary to succeed in various academic disciplines and professional fields.
- It also helps students develop communication skills, both verbal and written, which are crucial for effective communication in academic and professional settings.

4. Fostering Personal Growth:

- **General Studies** encourages students to understand themselves better, develop empathy for others, and build positive relationships.
- It also promotes self-directed learning and a lifelong love for learning by providing a strong foundation of knowledge and skills.

LEARNING OBJECTIVES :

The Learning objectives of teaching General Studies are as follows:

- **General Studies** promotes self-directed learning and encourages students to take an active role in their own education.
- **General Studies** teaches students about their rights and responsibilities as citizens and encourages them to participate in their communities.
- The subject provides students with opportunities to apply their knowledge to real- world situations and to develop their problem-solving skills.
- It helps students develop pride in the rich cultural heritage as well as in the multipronged achievements of the country in various fields such as politics, agriculture, Science and technology, education and industry.
- **General Studies** helps students develop their verbal and written communication skills, enabling them to effectively express their ideas and opinions, be conversant with contemporary socio-economic problems of the country like illiteracy, poverty, social disharmony, sex or caste discrimination etc.
- **General Studies** aims to teach students how to analyze, evaluate, and interpret information in a systematic manner.

In the revised academic course curricula of ASSEB, the subject **General Studies** is **compulsory** for the students of class **XII** from the academic session 2026-2027. The students will be assessed through written examination and project work. However, a total mark 50 is allotted for the subject but the mark secured will not be calculated in the overall result. Instead of it, grade is awarded based on the marks obtained by the student. The grading scheme for the subject is as follows...

Grade	Percentage	Marking Range
A	80% - 100%	40 - 50
B	60% - 79%	30 - 39
C	40% - 59%	20 - 29
D	0% - 39%	0 - 19

SYLLABUS FOR GENERAL STUDIES**One Paper****Time : 1 hrs 30 minutes****Marks : 50**

Marks in Theory (Written Examination) : 40

Marks for Project : 10

Unit	Chapter Name	Sub Theme
01	Our Northeast, Our Neighbourhood	● Introduction to Socio Economic structure and its current trends ● NE and our neighborhoods
02	Inculcation of Scientific Temper	● Contemporary Sc. & Technology ● Impact of scientific temper and uses of technology in the present societal context ● Cybercrime Ecosystem
03	Cultural Heritage	● Unity in diversity ● Removal of social barriers ● Equality of Sexes ● Nation Building
04	Importance of CCA	● NCC, NSS, Scouts and Guide etc. ● Music, Drama, Dance, Debate, recitation etc. as CCA
05	Indian Knowledge System	● Indian philosophical systems ● Vedic Mathematics ● Indian Astronomy ● Yoga and Meditation ● Ayurveda ● Indian Arts Forms (Music, dance etc.) ● Town planning , Governance and Public Administration
06	Nature of the Indian Constitution	● Nature of Indian Constitution ● Constitutional Obligation

07	Nature and Conservation	● Importance and impact of Nature Learning ● Protection of Environment ● Energy Conservation ● Wildlife Conservation
08	Commerce for Entrepreneurship Development	● Importance of Commerce Education for Entrepreneurship Development ● Technological interventions in Commerce Education ● Financial Literacy
09	Workforce Education Skills	● Soft skills ● Digital Skills ● Industry Specific Skills
10	Human Rights	● The Universal Declaration of Human Rights and its significance ● The responsibility of individuals, communities, and businesses in promoting human rights ● The relationship between human rights and sustainable development ● Sustainable Development Goal ● Right to Information ● Right to Public Service Act, 2012, [Amended in 2024] ● The Protection of Children from Sexual Offences Act, 2012

PROJECTS

A. Selection of Topic and Student's observation

1. The students may do simple projects, as they like on the themes of the syllabus, where they will identify a problem, frame a hypothesis, gather data and analyze it to test the hypothesis.
2. As project is carried for completion over a period, it provides a significant opportunity to assess both Scholastic and Co scholastic skills of students.
3. Project based learning offers a good experience to the students beyond their textbooks and classroom lectures..
4. The students develop critical thinking skills and the competencies to solve problems
5. The students may be assessed on criteria based on few observations. Each may be assigned a score out of 04.

Sl No.	Descriptors	Score Out of 04
01	Demonstrates understanding of the concept of the Project	
02	Has done enough research and collected relevant information	
03	Demonstrates originality in the approach to the project	
04	Resources used like internet, library and other material for the completion of the project	
05	Has interpreted the results properly by drawing logical conclusions	

B. Preparation of Questionnaire and presentation of the project:

A questionnaire is a list of questions that are answered by many people . It is used to collect information about a particular subject. It can be used to collect quantitative and/or qualitative information. Generally, it is used as a tool to conduct survey.

For example – To conduct a survey on the awareness on Financial Literacy of the Common People

The main Objectives of this survey :

- Students will be able to interact with people to find out how alert they are in handling financial matters.

- Students will find out how the people become victim of fraudulent groups.
- Students after analyzing the data collected by them will be able to spread the message to the people on the importance of Financial Literacy.
- Students will be able to arrange for lectures to the public to share the findings of their survey and how alert they should be on financial matters.

The teacher may facilitate by giving following instructions to the students

- Students may work in groups of five or six on each project. Questionnaire to be used in their locality covering age group 17+.
- Each group will prepare a questionnaire having a list of relevant questions or items to be used to gather data from respondents. May have a list of open ended questions
- Each group will analyse the data collected by them and will share their findings with others
- After analysing the data collected, feedback to be given to the financial agencies for further action. This can be executed in a public forum to create awareness.

In this stage the students may be assessed on criteria based on few observations. Each may be assigned a score out of 06.

Sl No.	Descriptors	Score Out of 06
1	Justification of the role (content of role play and reasoning)	
2	Effectiveness of communication (may include communication skill, confidence and clarity of thoughts)	
3	Participation in group work	
4	Creativity (something extra done that is relevant and enhances the presentation)	
5	Overall presentation	

Guidelines :

1. Choose any One topics for the Project Work, one each from Units I-X, as mentioned in the syllabus.
2. The maximum length of the project work is 1000 words.
3. The Project Work should be hand-written in A4 sheets, and neatly filed / spiral bound. No typed or downloaded material will be accepted.

4. The Cover Page to be personalized based on the topics of your choice; along with the Name, Roll No., Class & Section.
5. The Project Work on each topic should comprise of a maximum of 3 A4 sheets.
6. Pictures/Data should be pasted on the left page along with relevant captions.
7. Acknowledgements of the web links, sources, e-journals, magazines, citations media reports etc. should be included.
8. References from any verbal, visual or written sources must be duly acknowledged as a part of the Academic Honesty Policy.
9. Case Studies to be included, if found relevant to your topic.

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CHAPTER

1

Our Northeast, Our Neighbourhood

Take out the map of our country and look to the extreme east. What do you see? Yes, that is the region we belong to. That is the Northeastern region of India.

Take a closer look. How many states do see in it? Yes, there are seven states, with Assam in the middle. The seven states, in the alphabetical order, are – Arunachal Pradesh, Assam, Nagaland, Manipur, Meghalaya, Mizoram and Tripura. There is also an eighth state - Sikkim – which is slightly detached, but which is considered as a part of the Northeast.

Rich history :

The region has a long and rich history. Till about two hundred years ago, this region was divided into a number of kingdoms, several small principalities and a number of self-governing village territories. The kingdoms – in Assam, Manipur and Tripura – were ruled by kings, and the smaller principalities and self-governing villages, which were mostly in the hills, had their own respective chiefs or chieftains. The British East India Company had initially come to India for trade in 1608 CE. But, taking advantage of the unstable political situation, the Company began interfering in the political functioning of different local rulers, and established its first political dominance in Bengal in 1757. Thereafter, it slowly expanded control all over the subcontinent by annexing it part by part.

Assam was earlier a kingdom ruled by the Ahoms. The Burmese invaded Assam and Manipur thrice from 1817 to 1821, and took over the two kingdoms. After that, the Burmese started intruding into Bengal, which was then under British rule. This prompted the British to launch an expedition in 1824, and the Burmese were defeated and pushed out of Assam and Manipur. The British also signed the Treaty of Yandaboo on February 24, 1826, and annexed Assam to British India. Manipur became a princely state under British Paramountcy. Annexing one area after the other, the colonial power established its governance across the region by the beginning of the twentieth century. Important to note, the British had initially announced that they had no intention of ruling the region and that they would return after flushing out the Burmese invaders. But, history shows that after discovering tea and petroleum in Assam, they decided to stay back.

Even before that, the British, while ruling Bengal, had started using the term ‘Northeast Frontier’ for the areas lying to its northeast, and it was from there that the term ‘Northeast’ came into use.

Initially placed under Bengal administration, Assam became a chief commissioner’s province in 1874. When the British partitioned Bengal in 1905 on religious lines to weaken the national movement, Assam was tagged with Eastern Bengal to form a province called ‘Eastern Bengal and Assam’. Assam however was separated from Eastern Bengal six years later and made a Chief Commissioner’s province in 1911. Ten years later, Assam became a Governor’s province. It was since the clubbing with Eastern Bengal that Assam began facing massive immigration of people from there.

Freedom struggle and after :

Assam, and for that matter, people of the other areas of the region, began opposing British rule from the very beginning. There were both violent resistances as well as the non-violent movement against foreign rule across the region. People of the Northeast contributed immensely towards India’s freedom, and a large number of persons attained martyrdom while fighting for the sacred motherland. As independence was nearing, and the British were preparing to partition India, a conspiracy was hatched to include Assam and this region in Pakistan. This conspiracy however was foiled under the leadership of Lokapriya Gopinath Bardoloi, and Assam and the Northeast remained as integral parts of India.

The partition of India led to creation of East Pakistan, and this cut off the Northeast from the rest of India, except for a 22-km wide stretch of land known as Siliguri Corridor. The region's links to the rest of India by road, railway and waterways – all fell in East Pakistan. It took several years to construct a new highway and a railway track through the Siliguri Corridor. At the same time, the region – Assam and Tripura in particular – also saw fresh influx from East Pakistan.

At the time of India's independence, Assam had a vibrant economy. Since it was the only province in India to produce petroleum and tea, Assam was one of the highest revenue paying states during that time. The fifth most prosperous state at the time of independence, Assam's per capita income in 1950-51 was 4 per cent above national average.

The princely states of Manipur and Tripura joined the Indian Union in 1949 and were made Union Territories. Assam was then a large state which included what are now Nagaland, Meghalaya and Mizoram. Present-day Arunachal Pradesh on the other hand was called North East Frontier Agency or NEFA, and was directly administered by the Government of India. In 1963, the Naga Hills district of Assam became a separate state called Nagaland. The Government of India reorganized the Northeastern region in 1972. Under this reorganization, the Mizo Hills district became a Union Territory called Mizoram, and two other districts – namely the United Khasi & Jaintia Hills, and the Garo Hills – together became a state called Meghalaya. The same year, Manipur and Tripura were made full-fledged states. NEFA, which was upgraded to a Union Territory called Arunachal Pradesh in 1972, became a full-fledged state in 1987. The same year, Mizoram too became a full-fledged state. The former kingdom of Sikkim, which joined the Indian Union in 1975, is also considered a part of the Northeast, because it shares similar Himalayan ecology, culture, and strategic importance. Moreover, it facilitates regional development and administrative cohesion.

Unlike other parts of the country, the Northeast has one special administrative system for the tribal areas under the Sixth Schedule of the Indian Constitution. The **Sixth Schedule** provides for the administration of tribal areas of **Assam, Meghalaya, Tripura, and Mizoram**, and is designed to safeguard the rights of the tribal communities through the establishment of **Autonomous District Councils and Territorial Councils**.

There is also a special nodal statutory advisory body called North Eastern Council (NEC) for economic and social development of the region. Established in 1971, the NEC functions as a regional planning body, focusing on infrastructure, development projects, and inter-state coordination under the Ministry of Development of North Eastern Region (DoNER).

Unique features :

The Northeast has several unique features. Going back to the map again, you will find that the Northeast is surrounded by several countries. It has 5,484 km of international border – with China (1,346 km), Myanmar (1,643 km), Bangladesh (1,880 km), Bhutan (516 km) and Nepal (99 km). No other region of the country shares boundary with so many foreign countries. The region also shares 127 km inter-state boundary with West Bengal. Because of this geographical location, the Northeast has a special strategic importance for the entire country. Being surrounded by other countries, the Northeastern region also benefits significantly from the Act East Policy and Neighbourhood First Policy of the Government of India. These two policies have helped in transforming the region from an isolated periphery into a strategic hub for economic, cultural, and infrastructure engagement with Southeast Asia. Some major benefits include enhanced connectivity (roads, rail, air), increased trade opportunities, tourism growth, and improved infrastructure to counter regional development gaps.

The Northeast comprises only about eight per cent of India's land area and close to four per cent of its population. But the region is home to over 200 distinct ethnic groups and tribal and non-tribal communities. Roughly 12 per cent of India's total scheduled tribe population lives in the Northeast. Each of these communities has its own distinct language, culture, and tradition. Three languages of the region – Assamese, Bodo and Manipuri – find place in the list of scheduled languages of the country. Among them, Assamese is also recognized as a Classical Language. Every community of the region has its own distinct culture, which is expressed through music, dance, festivals, rituals, crafts, folklore and literature.

Northeast India is an important biodiversity hotspot of the world. More than 30 per cent of India's biodiversity is found here. The different types of forests are home to several species of birds and animals which are endemic to region. Some animals endemic to the region are – Golden langur, Sangai deer, Hoolock gibbon, pygmy hog, hispid hare, Bengal florican, and

white-winged wood duck, to name a few. Assam on the other hand has the highest number of one-horned rhinos in the world. The region also has several endemic floral species and orchids. There are twenty National Parks in the region, two of which – Kaziranga and Manas – are also World Heritage Sites. Mawsynram on the other hand is the rainiest place in the world.

The mighty Brahmaputra is a major international river of the world. It originates in Tibet (in China), flows through the Northeast, and meets the Bay of Bengal in Bangladesh. One of the five largest rivers in the world in terms of average water discharge, the Brahmaputra is also the world's 15th longest river. Situated in the heart of the mighty river, Majuli is the world's largest inhabited river island. Being one of the world's most difficult rivers, the Brahmaputra also causes floods almost every year. Being situated in Seismic Zone V as categorized by the Bureau of Indian Standards, the Northeast is highly prone to frequent earthquakes too.

Economy & Development :

On the economic front, Assam is the most industrialized state in the region. It produces more than 50 per cent of India's tea. The tea industry also employs the highest number of persons in the region. The second place in the world where petroleum was discovered, Assam was for long the only oil-producing state of India. With the discovery of oil in several other states, Assam today contributes about **15** per cent of the country's total crude oil production. Assam also produces about 15 per cent of India's total natural gas. There are several industries in Assam based on oil and gas. These include four refineries, one fertilizer factory, a gas cracker industry, one petro-chemical complex and three power plants. Tripura too produces oil and natural gas, and has five gas-based power plants. Northeast India has massive potential for hydro-electric power, and several hydro-electric power projects are coming up across the region. While Assam's tea is exported to different parts of the world, Tripura exports electric power to Bangladesh.

Looking at communication, one would find that while the railways came to India in 1853, the first railway train moved in Assam in 1881. There was a time when only Assam had railways. Today, every state in the Northeast, barring Sikkim, is connected to the national railway network. Likewise, while there were only nine airports in the region till 2014, the

number rose to sixteen in the next ten years. Moreover, work is also going on for the Trans-Asian Railway to pass through the region. As far as river transport is concerned, the Brahmaputra is a major National Waterway (NW-2), and serves as a vital artery for the Northeastern region, connecting it to other parts of India and international routes via Bangladesh. Described as the lifeline of Assam, the Brahmaputra, which had only three bridges till a few years ago, has as many as eight bridges as on 2026, with a few more under construction. Digital connectivity to and within the region has also drastically improved.

There was a time when the Northeast, being economically backward, had become a breeding ground for disturbances, protests, violence and insurgency. With rapid economic development and peace initiatives to settle the long-pending grievances of the communities happening side by side, the region has become peaceful and started attracting a large number of tourists from all over. Simultaneously, a number of big companies have also started investing in the industrial and infrastructure sectors of the region.

The Northeast is also a powerhouse of sports talents. Young sports-persons from the region have represented India in various events and won medals in various international competitions, including the Olympic Games. There is a deep-rooted, inherent culture of physical activity among various communities of the region. This has helped use sports into a vital pathway for ambition, recognition, and livelihood for its youth.

EXERCISES

? Multiple Choice Questions :

1. How many states are there in the Northeastern region including Sikkim?
(a) 6 (b) 7
(c) 8 (d) 9
2. Which state is located in the middle of the Northeast region?
(a) Meghalaya (b) Assam
(c) Manipur (d) Tripura

3. The British East India Company came to India in:
(a) 1498 (b) 1608
(c) 1757 (d) 1826
4. The Treaty of Yandaboo was signed in:
(a) 1757 (b) 1817
(c) 1826 (d) 1857
5. Which kingdom ruled Assam before British annexation?
(a) Mughal (b) Ahom
(c) Gupta (d) Maurya
6. The term “Northeast” originated from:
(a) Mughal Empire (b) British administration
(c) Tribal councils (d) Indian Constitution
7. Assam became a Chief Commissioner’s province in:
(a) 1826 (B) 1874
(c) 1905 (d) 1911
8. Who played a key role in keeping Assam in India during partition?
(a) Mahatma Gandhi (b) Subhash Chandra Bose
(c) Gopinath Bardoloi (d) Jawaharlal Nehru
9. The Siliguri Corridor is approximately:
(a) 10 km wide (b) 22 km wide
(c) 50 km wide (d) 100 km wide
10. Nagaland became a separate state in:
(a) 1949 (b) 1963
(c) 1972 (d) 1987
11. The Sixth Schedule of the Constitution deals with:
(a) Fundamental Rights (b) Panchayati Raj
(c) Tribal administration (d) Election process
12. The North Eastern Council (NEC) was established in:
(a) 1963 (b) 1971
(c) 1987 (d) 1991

13. The Northeast shares international borders with how many countries?
(a) 3 (b) 4
(c) 5 (d) 6
14. Which country shares the longest border with Northeast India?
(a) China (b) Myanmar
(c) Bangladesh (d) Bhutan
15. Which of the following is NOT a scheduled language from the Northeast?
(a) Assamese (b) Bodo
(c) Manipuri (d) Khasi
16. Which place is known as the rainiest place in the world?
(a) Cherrapunji (b) Shillong
(c) Mawsynram (d) Imphal
17. The Brahmaputra River originates in:
(a) India (b) Nepal
(c) Tibet (China) (d) Bhutan
18. Majuli is famous as:
(a) Largest lake (b) Largest desert
(c) Largest inhabited river island (d) Largest forest
19. Assam produces approximately how much of India's tea?
(a) 25% (b) 40%
(c) 50% (d) 75%
20. Which National Waterway is the Brahmaputra River?
(a) NW-1 (b) NW-2
(c) NW-3 (d) NW-4

? Short Type Questions :

1. Write the names of the eight states of the Northeast in an alphabetical order, with the names of their respective capitals?
2. When did the British first come to India? Why and how did the British occupy Assam?
3. Write 100 words about the freedom struggle in the Northeast?

4. What was the impact of the Partition of India on Assam and the Northeast? Write in five sentences?
5. Write in 100 words about the reorganization of the Northeastern region.
6. Name the countries with which the Northeastern region shares international boundaries. How have Act East Policy and Neighbourhood First Policy benefited the region?
7. Write 100-word notes on any two of the following topics – (i) Biodiversity of Northeastern region, (ii) The Brahmaputra, (iii) Ethnic diversity of the Northeast, (iv) Industries based on petroleum and natural gas.
8. Write 100 words on the communication facilities in the Northeast.

MCQ ANSWERS

1. (c)	2. (b)	3. (b)	4. (c)
5. (b)	6. (b)	7. (b)	8. (c)
9. (b)	10. (b)	11. (c)	12. (b)
13. (c)	14. (c)	15. (d)	16. (c)
17. (c)	18. (c)	19. (c)	20. (b)



Inculcation of Scientific Temper

Introduction :

Every society progresses when people learn to question, reason, and make decisions based on facts, observations, and logic. This mindset is known as scientific temper. Thus, Scientific Temper means a way of thinking that is based on observation, questioning, testing, and reasoning rather than on blind belief or unverified information. It encourages individuals to ask “Why?”, “How?” and “What evidence supports this?”

The Indian Constitution encourages the development of scientific temper among citizens. Fundamental Duties (Article 51A) of the Indian Constitution states that every citizen should develop scientific temper, humanism and the spirit of inquiry and reform. Scientific temper does not mean only knowing science subjects; it means thinking logically and avoiding blind acceptance of anything without verification.

In our daily life in Assam, we use scientific reasoning when:

- Checking whether news is genuine before sharing.
- Using weather forecasts before farming or fishing.
- Comparing product quality instead of believing advertisements.
- Using medical advice instead of superstition.

Thus, scientific temper is a way of life, not just an academic topic.

Why Scientific Temper is Needed Today :

We live in a time where information spreads very quickly, especially through digital media. Many times, rumours, fake news, and misleading claims are also spread.

Scientific temper helps us to:

- Make logical decisions
- Distinguish truth from misinformation
- Avoid superstitions
- Promote healthy and rational social behaviour
- Solve problems based on evidence, not fear or belief

Contemporary Science and Technology :

Modern science and technology today have transformed every field of life. Contemporary science and technology refer to modern scientific knowledge and technological tools that shape present-day human life. They influence almost every sphere of society and have transformed how people learn, communicate, work, travel, and solve problems. Rapid technological progress has improved efficiency, reduced distances, and created new opportunities, especially for the youth.

Major areas of contemporary science and technology include Information and Communication Technology (ICT), Biotechnology and Health Sciences, Artificial Intelligence and Machine Learning, and Renewable Energy and Green Technologies. These areas are particularly relevant for Assam and the North Eastern region, where technology helps overcome geographical and infrastructural challenges.

Information and Communication Technology has revolutionized communication and access to information through smartphones, the internet, social media, and video calls. ICT has also expanded education through online learning, e-books, and digital libraries, and strengthened digital governance and public services. Biotechnology and Health Sciences have improved healthcare and agriculture through vaccines, modern diagnostic tools, telemedicine, biofertilizers, and improved seed varieties.

Artificial Intelligence and Machine Learning enable computer systems to analyze data and support decision-making in areas such as weather forecasting, healthcare, education,

agriculture, and disaster management. Renewable Energy and Green Technologies promote sustainable development through solar energy, electric vehicles, and energy-efficient systems, which are vital for environmentally sensitive regions like the North East.

In Assam, digital tools are used in tea gardens to improve productivity, while telemedicine, flood early warning systems, and e-commerce platforms support healthcare, disaster management, and local livelihoods. Overall, contemporary science and technology play a crucial role in regional development and future career opportunities for students.

Area	Examples of Changes
Communication	Smartphones, social media, video calls and conferencing
Healthcare	Vaccines, MRI, telemedicine
Education	Online learning, e-books and e-contents, digital libraries
Agriculture	Biofertilizers, high-yield seeds, drones, digital tools
Transportation	Electric vehicles, GPS navigation

Example (Assam): Digital agriculture tools are increasingly used in tea gardens of Assam to monitor soil moisture, fertilizer use, and weather conditions to improve productivity.

Example (North East India): Telemedicine services now allow patients from remote and hill regions to consult doctors online without coming physically to central Hospitals.

Examples of few other new technologies helping in our region:

- **Disaster management:** flood early warning systems
- **Handicrafts and weaving:** e-commerce platforms, use of social media for promotion and sale of handicrafts and handloom products of local craftspersons and weavers

Scientific Temper in Society :

Scientific temper influences how individuals interact with society. A society with scientific temper becomes progressive, modern, and democratic. It encourages and promotes:

- Questioning unverified claims
- Rejecting superstitions and harmful rituals

- Promoting equality, since scientific thinking treats all humans equally
- Making decisions based on reliable evidence and reasoning
- Reduction of social barriers and prejudices
- Encouragement of innovation
- Better problem-solving in communities
- Respect for facts, debate, and discussion

Technology and its Social Impact :

Technology plays an important role in everyday activities. However, technology must be used responsibly, ensuring data privacy, ethical digital behaviour, and with awareness of cyber risks. Scientific temper helps us use technology responsibly.

- Online banking and UPI for easy transactions
- Internet-based employment and digital freelancing
- Online education and learning platforms
- Medical diagnosis and vaccination drives
- Digital governance services such as Dharitri, Sewasetu, m-paribahan, e-District, Aadhaar-based services

Technology has both positive and negative impacts.

Positive Impact	Negative Impact (if misused)
Faster communication	Cyberbullying
Easy access to information	Spread of misinformation
Improved healthcare	Data privacy risks
Online education	Excessive screen time

Cybercrime Ecosystem :

With increased digital activity, cybercrimes have also increased. Cybercrime refers to crimes committed using computers or the internet.

Common Cyber Risks:

- Fake job and scholarship links

- Online fraud
- ATM and UPI fraud
- Identity theft using social media
- Rumours spread through messaging apps
- Phishing (fake messages asking for passwords/OTP)
- Cyberbullying
- Data hacking

Students must follow:

1. Do not share passwords or OTPs
2. Use strong passwords
3. Verify information before clicking links
4. Report online harassment to elders/authorities
5. Use secure websites (https://)

How Scientific Thinking Helps:

- Verify before clicking unknown links
- Cross-check news with trusted sources
- Use strong passwords and two-factor authentication

Cyber Hygiene is the new term which refers: Practices that keep online activity safe, like not sharing passwords, logging out from public devices, and checking website authenticity.

Developing Scientific Temper: What Students Can Do :

- Ask questions and seek explanations.
- Read newspapers, science news, and government reports.
- Participate in science clubs, fairs, and debates.
- Discuss ideas with peers and family rationally.
- Avoid forwarding unverified messages.
- Support decisions based on fairness and logic.



- The Indian Space Research Organisation (ISRO) team for crucial satellite and launch vehicle research and development works includes Assamese scientists.
- The Brahmaputra Valley has one of the world's richest biodiversity hotspots studied extensively using scientific research methods.

Scientific temper is essential for modern living, social progress, and responsible citizenship. It helps individuals think rationally, adopt technology wisely, and contribute to a more cooperative and informed society.

EXERCISES

? Multiple Choice Questions :

1. What is meant by scientific temper?
(a) Blind belief in traditions
(b) Thinking based on logic and evidence
(c) Memorizing scientific facts
(d) Following others without questioning
2. Scientific temper encourages individuals to ask which questions?
(a) When and Where
(b) Who and Which
(c) Why and How
(d) What and When
3. Which Article of the Indian Constitution promotes scientific temper?
(a) Article 21
(b) Article 19
(c) Article 51A
(d) Article 32
4. Scientific temper helps in avoiding:
(a) Education
(b) Superstitions
(c) Communication
(d) Technology
5. Which of the following is an example of scientific reasoning?
(a) Believing rumors
(b) Following superstition
(c) Checking news before sharing
(d) Ignoring facts
6. Scientific temper helps to distinguish:
(a) Good from bad
(b) Truth from misinformation
(c) Rich from poor
(d) Urban from rural

7. Contemporary science and technology mainly refer to:
 - (a) Ancient discoveries
 - (b) Modern scientific knowledge
 - (c) Religious beliefs
 - (d) Cultural traditions
8. Which is NOT a major area of contemporary technology?
 - (a) ICT
 - (b) Biotechnology
 - (c) Astrology
 - (d) Artificial Intelligence
9. ICT stands for:
 - (a) Information and Communication Technology
 - (b) Indian Communication Tools
 - (c) International Computer Technology
 - (d) Information Control Technique
10. Telemedicine helps in:
 - (a) Farming
 - (b) Online shopping
 - (c) Remote healthcare consultation
 - (d) Transportation
11. Artificial Intelligence helps in:
 - (a) Ignoring data
 - (b) Data analysis and decision-making
 - (c) Writing only books
 - (d) Avoiding technology
12. Renewable energy includes:
 - (a) Coal
 - (b) Petrol
 - (c) Solar energy
 - (d) Diesel
13. Scientific temper promotes:
 - (a) Blind faith
 - (b) Equality and reasoning
 - (c) Superstitions
 - (d) Fear-based decisions
14. Which is a positive impact of technology?
 - (a) Cyberbullying
 - (b) Misinformation
 - (c) Improved healthcare
 - (d) Data theft
15. Which is a negative impact of technology?
 - (a) Online education
 - (b) Easy communication
 - (c) Cyberbullying
 - (d) Digital governance
16. Cybercrime refers to:
 - (a) Farming crimes
 - (b) Crimes using internet or computers
 - (c) Street crimes
 - (d) Political crimes

17. Phishing means:
- (a) Fishing in rivers
 - (b) Fake messages to steal information
 - (c) Data storage
 - (d) Email writing
18. Cyber hygiene means:
- (a) Cleaning computers
 - (b) Safe online practices
 - (c) Internet speed
 - (d) Buying gadgets
19. Which is a safe online practice?
- (a) Sharing OTP
 - (b) Using weak passwords
 - (c) Verifying links before clicking
 - (d) Ignoring security
20. Students can develop scientific temper by:
- (a) Avoiding questions
 - (b) Forwarding rumors
 - (c) Asking questions and verifying facts
 - (d) Believing everything blindly
21. Scientific temper is encouraged by which Article of the Constitution?
- (a) 21A
 - (b) 51A
 - (c) 370
 - (d) 356
22. Cyber hygiene refers to:
- (a) Cleaning computers physically
 - (b) Practices ensuring safe online activity
 - (c) A type of antivirus software
 - (d) None of the above
23. Telemedicine is useful for :
- (a) Online medical consultations
 - (b) Weather forecasting
 - (c) Farming only
 - (d) None

? Short Type Questions :

1. Define scientific temper.
2. Give two examples of science improving life in Assam.
3. What is misinformation?

? Long Type Questions :

1. Discuss how technology can be both beneficial and harmful in society.
2. Describe the role of youth in developing scientific temper in the community.

? Project Activity :

1. Observe a belief or common practice in your community. Discuss whether it is supported by scientific reasoning. Present your findings in class/discussion.
2. Find out how technology is helping in education and healthcare today, in the area of yours- your district/town/city. Prepare a Case-Study report of 2/3 pages.
3. Prepare a short note (2 Pages) on a real-life cybercrime faced by you/your friend/ someone known or you heard about, and give suggestion how to stay safe online.

MCQ ANSWERS

1. (b)	2.(c)	3. (c)	4. (b)
5. (c)	6. (b)	7. (b)	8. (c)
9. (a)	10. (c)	11. (b)	12. (c)
13. (b)	14. (c)	15. (c)	16. (b)
17. (b)	18. (b)	19. (c)	20. (c)
21. (b)	22. (b)	23. (a)	



Cultural Heritage

Introduction :

India is a country with a lot of diversities, diverse in languages, religions, ethnic background, rituals, food even the music and dance. These diversity makes our country unique and there diversities create a unity. These diversities are rich contributions of cultural groups in India over a time period. These culture are the possession of every Indian. It Includes social and intellectual aspect of human beings. Also aesthetic as well spiritual impulses Subconsciously helping the formation or development of a person's character.

Meaning of Cultural Heritage :

Cultural heritage is an expression of the ways of living developed by a community and passed on from generation to generation including customs, practices, places, objects, artistic expressions, and values.

Cultural Heritage of Two Types :

Tangible and Intangible Cultural Heritage :

Tangible refers to significant places of country's history and culture (monuments and shrines) and Intangible refers to aspects that cannot be touched or seen (traditional music, folklore, languages).

Cultural Heritage is Irreplaceable and unique. Deliberate act of keeping cultural heritage leads to preservation. This preservation helps as a resources to social institutions.

Now let's define the term Culture and Heritage.

According to Edward Tylor, "Culture is the complex whole which includes knowledge, belief, art, morals, law, customs and habitats and any capabilities acquired by man as a member of society."

According to Linton, "Culture is social heredity, which is transmitted from one generation to another with accumulation of individual experiences."

According to Aas et al (2005), "Heritage is the only form of culture that survives the test of the times and reaches from generation to generation as the living proof of people's journey in the process of human evolution."

Elements in Cultural Heritage of India, Culture is a way of life. The food we eat, the clothes we wear, the language we speak in and the God we worship all are aspects of culture.

In very simple terms we can say that culture is the embodiment of the way in which we think and do things. It is also the things that we have inherited as the member of society. In this includes both the elements of tangible and intangible cultural heritage.

Following are the elements of Cultural Heritage of India:

1. Religious culture
2. Family structure & Marriage
3. Festivals
4. Greetings
5. Animals
6. Cuisines
7. Clothing
8. Language and literature
9. Performing arts
10. Visual arts
11. Sports and martial arts

Religious culture :

Hinduism, Jainism, Buddhism, and Sikhism, are all based on the concepts of dhamma and karma. Ahimsa, philosophy of nonviolence, is an important aspect of native Indian faiths

whose most well-known proponent was Mahatma Gandhi who through civil disobedience brought India together against the British Raj. This philosophy further inspired Martin Luther King, Jr. during the American civil rights movement.

According to the 2011 census, 79.8% of the population of India practice Hinduism. Islam (14.2%), Christianity (2.3%), Sikhism (1.7%), Buddhism (0.7%) and Jainism (0.4%) are the other major religions followed by the people of India.

Family structure and Marriage :

Family structure :

India has a prevailing tradition of the joint family system. Consists parents, children, the children's spouses and their offspring, etc. - live together. Usually, the oldest male member is the head of the joint Indian family system. He mostly makes all important decisions and rules, and other family members are likely to abide by them.

Marriages :

Arranged marriages have long been the norm in Indian society. Even today, the majority of Indians have their marriages planned by their parents and other respected family-members.

Festivals :

India, being a multi-cultural, multi-ethnic and multi-religious society, celebrates holidays and festivals of various religions. Diwali is celebrated by Hindus, Sikhs, Buddhists, and Jains across the country. Festivals like Buddha Purnima, Krishna Janmashtami etc. are celebrated by Buddhists and Hindus. Sikh festivals, such as Guru Nanak Jayanti, Baisakhi are celebrated with full fanfare by Sikhs and Hindus of Punjab and Delhi. The Islamic festivals which are observed in India are Eid Ul Fitar, Bakrid, Milad-un-Nabi, Muharram

Christian festival such as Easter, Good Friday and Christmas etc. Along with this every state has their own festivals. The main festivals observed in Assam is Bihu like as Onam in Kerala, Pongal in Tamil Nadu, Lohri in Punjab and Haryana etc. These festivals are primarily harvest based.

Greetings :

Namaskar or namaste are the commonly used word for greeting each other in India (there are greetings in other languages but this is most commonly used greeting). The same

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hand folded gesture may be made wordlessly or said without the folded hand gesture. Namaskar comes from the Sanskrit word “namah” which means I bow to you. In most Indian families, younger men and women are taught to seek the blessing of their elders by reverentially bowing to their elders. This custom is known as Pranama.

Cuisine :

Indian cuisine varies from region to region, which can be split into five categories northern, southern, eastern, western, and northeastern. The diversity of Indian cuisine is characterized by the differing use of many spices and herbs, a wide assortment of recipes and cooking techniques. Though a significant portion of Indian food is vegetarian, many Indian dishes also include meats like chicken, mutton, pork and fish, egg and other seafood.

Fish-based cuisines are common in eastern states of India, particularly West Bengal and the southern states of Kerala and Tamil Nadu.

Clothing :

Clothing in India is dependent upon the different ethnicity, geography, climate, and cultural traditions of the people of each region of India. Historically, male and female clothing has evolved from simple garments like dhoti, lungi, sari to cover the body into elaborate costumes not only used in daily wear, but also on festive occasions, as well as rituals and dance performances. India also has a great diversity in terms of weaves, fibers, colours, and material of clothing. The clothing in India also encompasses the wide variety of Indian embroidery, prints, handwork styles of wearing clothes. A wide mix of Indian traditional clothing and western styles can be seen in India.

Languages & Literature :

Languages :

More than 19,500 languages or dialects are spoken in India as mother tongues, according to the latest analysis of a census released this week. There are 121 languages which are spoken by 10,000 or more people in India, which has a population of 121 crore.

In 2011 census out of 121 languages, 22 are already part of the Eighth Schedule to the Constitution of India they are 1) Assamese, (2) Bengali, (3) Gujarati, (4) Hindi, (5) Kannada,

(6) Kashmiri, (7) Konkani, (8) Malayalam, (9) Manipuri, (10) Marathi, (11) Nepali, (12) Oriya, (13) Punjabi, (14) Sanskrit, (15) Sindhi, (16) Tamil, (17) Telugu, (18) Urdu (19) Bodo, (20) Santhali, (21) Maithili and (22) Dogri.

Sanskrit has a profound impact on the languages and literature of India. Hindi, India's most spoken language, is a "Sanskritised register" of the Delhi dialect. In addition, all modern Indo-Aryan languages, Munda languages and Dravidian languages, have borrowed many words either directly from Sanskrit or indirectly via middle Indo-Aryan languages. The words originating in Sanskrit are estimated to constitute roughly fifty percent of the vocabulary of modern Indo-Aryan languages.

Literature :

The Indian literature refers to the literature related to India. The earliest works of Indian literature were orally transmitted. Sanskrit begins with Rig Veda a collection of sacred hymns dating to the period 1500-1200 BCE. The Sanskrit epics Ramayana and Mahabharata appeared towards the end of the first millennium BCE. Classic Sanskrit literature flourished in the first few centuries of the first millennium BCE. In the medieval period, literature in Kannada and Telugu appeared in the 9th and 10th centuries respectively.

Performing arts :

India is a powerhouse of performing arts, a colorful and multi-hued ritual that showcases talent like nothing else. These traditions serve as vital link between the country's spiritual past and its contemporary identity, with many forms officially recognized by UNESCO as Intangible Cultural Heritage.

Dance :

India has had a long romance with the art of dance. The Hindu Sanskrit texts Natyasastra (Science of Dance) and Abhinaya Darpana (Mirror of Gesture) are estimated to be from 200 BCE to early centuries of the 1st millennium CE. Different forms of dances originated in different parts of India. Indian dance includes eight classical dance forms, many in narrative forms with mythological elements. Bharatanatyam of Tamil Nadu, Kathak of Uttar Pradesh, Kathakali and Mohiniattam of Kerala, Kuchipudi of Andhra Pradesh, Yakshagana of Karnataka, Manipuri of Manipur, Odissi of Odisha, Sattriya of Assam.

Music :

Music is an integral part of India's culture. Natyashastra, a 2000-year-old Sanskrit text, describes five systems of taxonomy to classify musical instruments. One of these ancient Indian systems classifies musical instruments into four groups according to four primary sources of vibration, strings, membranes, cymbals, and air.

The lyrics of Surdas, Tulsidas, and most particularly Kabir and Mirabai continue to be immensely popular. By the sixteenth century, the division between North Indian (Hindustani) and South Indian (Carnatic) music was also being more sharply delineated.

Drama and Theatre :

Indian drama and theatre has a long history alongside its music and dance. Shakuntala and Meghadoota are some of the older dramas, Kutiyattam of Kerala, is the only surviving specimen of the ancient Sanskrit theatre, thought to have originated around the beginning of the Common Era, and is officially recognised by UNESCO as a Masterpiece of the Oral and Intangible Heritage of Humanity. It strictly follows the Natya Shastra. Nāṭyācharya Mani Madhavā Chākyār is credited for reviving the age old drama tradition from extinction. He was known for his mastery of Rasa Abhinaya.

Visual arts :**Paintings :**

Indian painting has a very long tradition and history in Indian art, though because of the climatic conditions very few early examples survive. The earliest Indian paintings were the rock paintings of pre-historic times, such as the rock curving found in places like Bhimbetka rock shelters which are approximately 10,000 years old. Indian paintings can be broadly classified as murals, miniatures and paintings on cloth. Murals are large works executed on the walls of solid structures, as in the Ajanta Caves and the Kailash Nath temple. Miniature paintings are executed on a very small scale for books or albums on perishable material such as paper and cloth etc.

Sculptures :

The first sculptures in India date back to the Indus Valley civilisation, where stone and bronze figures have been discovered. Later, as Hinduism, Buddhism, and Jainism developed

further, India produced some extremely intricate bronzes as well as temple carvings. Some huge shrines, such as the one at Ellora were not constructed by using blocks but carved out of solid rock.

The main Indian religions had developed the use of religious sculpture by around the start of the Common Era, and the use of stone was becoming increasingly widespread.

Architecture :

The architecture of India is rooted in its history, culture, and religion. Among a number of architectural styles and traditions, the contrasting Hindu temple architecture and Indo-Islamic architecture are the best known historical styles. Both of these, but especially the former, have a number of regional styles within them. An example of town planning was the Harappan architecture of the Indus Valley Civilisation. People lived in cities with baked brick houses, streets in a grid layout, elaborate drainage systems, water supply systems, granaries, citadels, and clusters of large non-residential buildings.

Much other early Indian architecture was in wood, which has not survived.

Sports & Martial Arts :

Sports :

Sport in India refers to the large variety of games played in India, ranging from tribal games to more mainstream sports such as cricket, badminton and football.

India's diversity of culture, people and tribe as well as its colonial legacy is reflected in the wide variety of sporting disciplines in the country. E.g. Cricket was Introduced by the English to the Indians, which became a popular sport now.

Chess is commonly believed to have originated in North Western India during the empire, where its early form in the 6th century was known as chaturanga.

Other games which originated in India and continue to remain popular in wide parts of northern India include Kabaddi, Gilli-danda, and Khokho etc. Traditional southern Indian games include Snake boat race and Kuttium kolum

The modern game of Polo is derived from Manipur, India, The first polo club was established in the town of Silchar in Assam, India, in 1833.

Martial Arts :

Indian martial arts techniques have had a profound impact on other martial arts styles across Asia. The 3rd-century BCE Yoga Sutras of Patanjali taught how to meditate single-mindedly on points located inside one's body, which was later used in martial arts. According to some historical accounts, the South Indian Buddhist monk Bodhidharma was one of the main founders of the Shaolin Kungfu.

One of the best known martial art is the Kalaripayattu. This fighting style is mentioned in Sangam literature 400 BCE and 600 CE and is regarded as one of the oldest surviving martial arts.

Characteristics of Indian Culture :

The fundamental characteristics of Indian culture reveals two important aspects.

Unity in diversity is the most significant aroma of the Indian culture.

There are 15 characteristics: Unity being Diversity

Diversity	Unity in Diversity
1) Physical diversity	9) Geographical unity
2) Racial diversity	10) Political unity
3) Linguistic diversity	11) Religious unity
4) Scriptural and Literary diversity	12) Cultural unity
5) Socio-cultural diversity	13) Scriptural, lingual and literary unity
6) Religious diversity	14) Socio economic unity
7) Economic diversity	15) Physical uniformity
8) Political diversity	

A few discussions on the significant aroma of the Indian culture “ unity in Diversity” has been put forward.

(a) Racial diversity :

India is a highly diverse nation with a population formed by thousands of years of migration and intermingling, creating a rich tapestry of ethnic and racial groups.

1. Pre-Dravidian

2. Dravidian
3. Indo-Aryan
4. Turko-Iranian
5. Scytho-Dravidian
6. Arya-Dravidian.
7. Mongoloid
8. Mongoloid-Dravidian

(b) Linguistic diversity :

There are 121 languages which are spoken by 10,000 or more people in India, which has a population of 121 crore. In 2011 census out of 121 languages, 22 are already part of the Eighth Schedule to the Constitution of India they are 1) Assamese, (2) Bengali, (3) Gujarati, (4) Hindi (5) Kannada, (6) Kashmiri, (7) Konkani, (8) Malayalam, (9) Manipuri, (10) Marathi, (11) Nepali, (12) Oriya, (13) Punjabi, (14) Sanskrit, (15) Sindhi, (16) Tamil, (17) Telugu, (18) Urdu (19) Bodo, (20) Santhali, (21) Maithili and (22) Dogri

(c) Socio-Cultural diversity :

The variations in physical features, racial structure and languages have resulted in considerable differences in dress, food habits, social customs and beliefs of the people.

The people of India differ considerably in their social practices and cultural differences vary from state to state.

The Hindu society as such is divided into a four-fold caste system which include: The Brahmanas, The Kshatriyas, The Vaisyas and The Sudras.

The traditions, customs, rituals in Indian society have their regional variations. Diverse elements are found in the performance of social rites, festivals and ceremonies.

(d) Religious Diversity :

India is one of the most religiously diverse nations in the world, serving as the birthplace of four major global religions - **Hinduism, Islam, Buddhism, Jainism, Christianity and Sikhism.**

(e) Geographical Unity :

The unity of a culture to a great extent depends on its geography. It is geography that determines the spread of a civilization. The geographical unity of India is an age-old concept which was very much present in the mind of its inhabitants since ancient times.

The first expression given to this sense of unity was naming the entire land from the Himalayas up to Cape Comorin by the single name of Bharatavarsha or the Land of Bharata till modern times.

(f) Religious Unity :

India is a country where several religions are freely adopted and practiced. The term “secular” used in the Indian Constitution, guarantees the citizens equality of all religions.

People of all religions and beliefs enjoy this freedom.

(g) Cultural Unity :

The cultural unity of India is equally strong amidst its manifold diversities.

The cultural roots of Indian life can be traced back to the Vedic period. This root gradually spread to Indian culture in course of time with its branches. Thus the basic unity of literary ideas, philosophy, outlook, conventions and practices has prevailed all over the country.

The social ceremonies, religious rites, festivals and modes of life are the same all over the country. The sanctity of family, the rules of the castes, rites of cremating a dead body, the cleanliness of the kitchen etc. are common to all communities and sects.

(h) Scriptural, Linguistic and Literary unity :

Although India possesses several languages, dialects, scripts and literary products in different languages, a sense of uniformity and oneness prevails among them.

Brahmi is the oldest form of Indian script. The script of Modern Indian language has been derived from it. At present the Indian Constitution recognises the Devnagari script as the script of national language. With different languages trying to maintain a national unity, literature of different regions too reflect this unified structure of the country.

Sanskrit literature is the main source from which the writers, poets and dramatists of modern Indian languages have taken both inspiration and material. The Vedas, Upanishads, Gita or the works of Kalidas or Jaydev in Sanskrit are rich treasures of regional literature.

(i) Socio-economic unity :

The social diversity of Indian life is superficial. Irrespective of differences in dress, food and other habits there is the mark of traditional unity. For example, whatever may be the regional variation in dresses, Dhoti and Saree still remain the traditional Indian costumes. In spite of the differences in food habits, the way of taking food while squatting on the ground, the treatment in vegetarian and non-vegetarian diet have a standard pattern throughout the country. Economic disparity among the Indians is quite visible. But one thing we must agree is that the root of Indian economy lies in agriculture. It is predominantly agrarian in nature. From the tiller of the soil to the owner of the soil, indirectly there is the bond of production from the soil which determines their way of living.

Moreover, there are large numbers of agro-based industries in India because of our dependence on agriculture.

Conclusion :

Cultural heritage plays a very important role in our life that keeps us attached to our religion, traditions and beliefs. The best way to preserve our cultural heritage, whatever it maybe, is to share it with other. It is our responsibility to keep world history intact for the coming generation so that they may have the same opportunities to learn about the past and their own roots as we have.

EXERCISES

? Multiple Choice Questions :

1. Cultural heritage refers to:
 - (a) Only historical monuments
 - (b) Ways of living passed from generation to generation
 - (c) Only traditions of kings
 - (d) Modern technology

2. Cultural heritage is mainly divided into:
 - (a) Ancient and modern
 - (b) Rural and urban
 - (c) Tangible and Intangible
 - (d) National and international
3. Which of the following is an example of tangible heritage?
 - (a) Language
 - (b) Music
 - (c) Monument
 - (d) Folklore
4. Intangible cultural heritage includes:
 - (a) Buildings
 - (b) Temples
 - (c) Traditional music and folklore
 - (d) Roads
5. According to Edward Tylor, culture includes:
 - (a) Only art
 - (b) Knowledge, belief, law, customs
 - (c) Only religion
 - (d) Only traditions
6. Who defined culture as “social heredity”?
 - (a) Edward Tylor
 - (b) Linton
 - (c) Gandhi
 - (d) Kalidas
7. The joint family system in India is headed by:
 - (a) Youngest member
 - (b) Oldest female
 - (c) Oldest male member
 - (d) Government
8. Arranged marriages in India are usually decided by:
 - (a) Friends
 - (b) Government
 - (c) Parents and family members
 - (d) Teachers
9. Which festival is mainly associated with Assam?
 - (a) Pongal
 - (b) Lohri
 - (c) Bihu
 - (d) Onam
10. “Namaste” means:
 - (a) Goodbye
 - (b) Welcome
 - (c) I bow to you
 - (d) Thank you
11. Indian cuisine is known for:
 - (a) Lack of variety
 - (b) Use of spices and herbs
 - (c) Only vegetarian food
 - (d) Only non-vegetarian food

12. Which of the following is a classical dance form of Assam?
 (a) Kathak (b) Bharatanatyam
 (c) Sattriya (d) Odissi
13. The Rig Veda is:
 (a) A drama (b) A novel
 (c) A collection of hymns (d) A painting
14. Chess originated in India as:
 (a) Polo (b) Kabaddi
 (c) Chaturanga (d) Gilli-danda
15. Which martial art is considered one of the oldest in India?
 (a) Karate (b) Kung Fu
 (c) Kalaripayattu (d) Judo
16. The concept of “Unity in Diversity” refers to:
 (a) Only differences (b) Only unity
 (c) Diversity with underlying unity (d) No diversity
17. India has how many languages in the Eighth Schedule?
 (a) 15 (b) 18
 (c) 22 (d) 25
18. Which is the oldest script in India?
 (a) Devanagari (b) Brahmi
 (c) Urdu (d) Tamil
19. The Harappan civilization is known for:
 (a) Music (b) Dance
 (c) Town planning (d) Literature
20. Cultural heritage helps in:
 (a) Forgetting traditions (b) Preserving history and identity
 (c) Promoting only modern ideas (d) Ignoring the past

? Short Type Questions :

1. Define cultural heritage and explain its significance.
2. Distinguish between tangible and intangible cultural heritage with examples.

Chapter - 3 :: Cultural Heritage

3. Explain the concept of “Unity in Diversity” in the context of Indian culture.
4. Describe the main features of the joint family system in India.
5. Discuss the role of festivals in reflecting India’s cultural diversity.

? Long Type Questions :

1. Explain the meaning of cultural heritage and discuss its types with suitable examples.
2. Describe the major elements of Indian cultural heritage in detail.
3. Discuss the characteristics of Indian culture with special reference to “Unity in Diversity.”
4. Explain the role of languages and literature in shaping Indian cultural heritage.
5. Describe the contribution of performing arts, visual arts, and architecture to Indian culture.

MCQ ANSWERS

1. (b)	2. (c)	3. (c)	4. (c)
5. (b)	6. (b)	7. (c)	8. (c)
9. (c)	10. (c)	11. (b)	12. (c)
13. (c)	14. (c)	15. (c)	16. (c)
17. (c)	18. (b)	19. (c)	20. (b)



Importance of CCA

The National Education Policy (NEP) 2020 promotes holistic development by shifting from rote learning to a multidisciplinary approach, aiming to nurture the intellectual, physical, emotional, social, and moral capacities of learners. It emphasizes integrating co-curricular activities (CCA) like arts, sports, yoga, NCC, Scout and Guide and vocational training into the core curriculum to create well-rounded individuals.

“**Sa Vidya Ya Vimuktaye**” (सा विद्या या विमुक्तये) is a foundational Sanskrit maxim from Indian philosophy, most notably cited in the *Vishnu Purana* (1.19.41). It translates to: “**That is knowledge/education which liberates.**”

In the context of modern education as envisaged by NEP-2020, the phrase challenges the view of education as just a means to a career or social status but as a means emphasizes on holistic development. Education should cover

- **Holistic Growth:** Education should cover physical, intellectual, emotional, moral, and spiritual aspects of life.
- **Value-Based Education:** It emphasizes character formation, fostering compassion, and removing mental, emotional, and social darkness.
- **Nation Building:** True education produces individuals who contribute to society, rather than just serving selfish, materialistic interests.

Co-curricular Activities (CCAs) are essential for implementing this philosophy in modern schools, as they move beyond classroom instruction to provide “liberation” in various ways. The ways may be categorized as follows :

- **Intellectual Liberation (Debates/Quizzes):** Encourages critical thinking, allowing students to free themselves from rigid, superficial perspectives.
- **Emotional/Creative Liberation (Art/Music/Drama):** Provides a channel to express inner emotions, reducing stress and allowing personal liberation through self-expression.
- **Social Liberation (Sports/NSS/Scouts):** Breaks down social barriers (caste, creed, gender), fostering equality, teamwork, and breaking free from prejudice.
- **Moral/Value Liberation (Value Education sessions):** Helps students understand *Dharma* (duty/righteousness) and *Karma* (action), freeing them from unethical, selfish behavior.

True education demands balance. A person’s formal journey of education should not be confined to words, questions, answers and textual problem solving. Rote learning and theoretical knowledge are insufficient for an immersive and productive education. Practical-based learning is essential to achieve a transformative journey.

Let us understand the crucial difference between curricular activities and co-curricular activities.

Curricular activities are the subjects and lessons that constitute part of the school’s prescribed curriculum. These include classroom transactions, laboratory works, assignments, projects, examinations etc. as compulsory. A student’s performance in curricular activities is formally decided through evaluation of tests, practical examinations, and board assessments.

Co-curricular activities are structured school-sanctioned programmes. These activities complement the academics with practical development. Skill-based and voluntary experiences are provided by institutions that foster a student’s holistic development, creativity, leadership abilities, and teamwork. These activities and experiences aim at developing social, emotional and primary growth of a student.

Both of these activities act together in harmony to enrich a student’s true potential. The 70:20:10 model of development can be rationally used as a conceptual framework to encourage

collaborative interactive and experiential learning alongside formal teaching. When students compete in music performances, learn and perform acting through peers, argue in a debate competition, stay mindful and quick for quiz competitions, they build confidence, learn how to balance emotions, and cultivate communication and emotional intelligence.

Emotional/Creative Liberation (Art/Music/Dance/Drama) :

Music :

Music in our lives nurtures various virtues which assist us in all or different walks in life. Essayist and art critic Walter Pater stated that “All art constantly aspires towards the condition of music.” It is a universal language that transcends time, culture and generations. A folk song from a distant corner of our world might establish a connection with our soul. Music plays a paramount role in holistic development and enriching cognitive ability. It stimulates our senses and utilizes critical thinking. Music uses metaphors, characters and setting which also enhances our analytical skills.

Institutions promote a comprehensive education by integrating music with formal education. Some important benefits of music as a co-curricular activity are as follows:

- 1. Enhances Cognitive Development:** Music learning enhances multiple brain areas simultaneously, strengthening neural connections. It improves learning and memory. Playing musical instruments or singing trains the mind to have a better attention-span and real-time decision making.
- 2. Develops Creativity and Passion:** Music nourishes divergent thinking and innovation. It unlocks imagination and creates paths to explore and produce new ideas and perspectives.
- 3. Improves Emotional Well-Being and Discipline:** Music is a powerful tool for self-expression, stress reduction and mood regulation. It helps in comprehending and managing emotions. A calm and collected mindset assists in diligently performing curricular activities of a student and other areas of life. Practice, time-management and perseverance are vital instruments in learning music. These, in turn, develop discipline in individuals.

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4. **Promotes Cultural Awareness :** Learning music acts as a bridge in understanding diverse cultures, traditions and histories. By learning one's own cultural music, individuals form a deeper connection with their cultural roots. By exploring music of different cultures, individuals break down cultural barriers and foster respect and inclusivity.
5. **Strengthens Social and Communication skills :** Participation in music learning refines clarity of speech. Stage performances improve public speaking skills and body language. Group performances such as choir, orchestras and cultural programmes nurture cooperation, coordination and leadership qualities.

By enhancing concentration, mental well-being, discipline and cooperation, music helps students develop life skills. There, music in classrooms contributes meaningfully to a holistic and inclusive educational environment.

Drama :

From ancient theatrical performances to modern school performances, drama has acted as a powerful and engaging medium through which social realities, emotions and perspectives are artistically conveyed. As a co-curricular activity, drama bridges creativity with learning. Lively and meaningful, drama occupies a prominent place in cultural preservation and holistic education.

1. **Improves communication and speaking skills:** The basic principle of drama is communication. There is a constant unspoken dialogue between actors and their audience. An actor needs to convey the nuances of their character efficiently which improves communicative skills. Story-telling, voice control, body language, emotional modulation are some skills that foster effective interaction.
2. **Boosts imagination and creativity:** While playing a character, you must push boundaries and become innovative in your thinking. Tools like role-playing and improvisation, a participant explores complex emotions, social issues and conflicting perspectives. Many school drama plays are based on historical events which provide a fun and complimentary link to classroom education.

3. **Promotes empathy and knowledge of social issues:** Playing a character helps an actor understand different struggles and emotions. Themes like morality, justice, awareness, active participation help students in building an inclusive mindset.
4. **Encourages teamwork and coordinating efforts:** An actor must rely on their peers to achieve a shared goal of performing their drama. This nurtures empathy and tolerance. Performing in front of an audience and with fellow actors help individuals overcome fear, nervousness and anxiety. These experiences equip an individual in navigating unexpected situations skillfully and innovatively. One also learns to take charge and communicate.
5. **Improves self-confidence:** Performing in a drama requires an individual to step out of their comfort zones and express themselves strongly. It boosts self-esteem and self-confidence and helps an individual develop courage.

Thus, drama acts as a stimulating component of co-curricular activities that helps in preparing an individual for future challenges with courage and competence. As an educational tool that helps an individual realize real-life experiences, drama promotes cooperation, discipline and empathy.

Dance :

Dance is a universal expression of life. From traditional dances to modern ones, each dance form stores rituals, music, and traditional practices. Different cultures move differently shaped by history, geography, culture. However, the emotions that are embedded in these dance forms and the movements that are utilized gracefully to express them are innate to humans.

1. **Preserves Cultural Heritage and Traditions:** Through rhythm, movement, costumes, and props, dance acts as a living archive of cultural heritage and practices. Dance is an excellent storytelling medium which stores centuries of values and a tapestry of culture. It provides a sense of identity and belonging.
2. **Improves Body Posture and Grace :** Regular dancing improves muscle flexibility, joint mobility and balance. It promotes body awareness and enhances relaxation. As dancers gradually learn how to maintain poise and grace, a sense of natural confidence follows.

Chapter - 4 :: Importance of CCA

3. **Strengthens Discipline :** The practice of dancing requires a dedicated involvement. Essential life skills such as discipline, perseverance and resilience are learned through dance. Warm-ups, technique, choreography provide dancers with a set structure to follow. It fosters a growth mindset and self discipline.
4. **Enhances Creativity:** Movement and expressions train dancers to cultivate artistic thinking and imaginative ability. Freestyle dancing and choreography – both give dancers the freedom of self-expression.
5. **Shapes Unity and Coordination:** Synchronized group performances demand coordination and mutual understanding among participants. Regular engagement contributes to nurture poise, grace and confidence among participants.

School dance clubs, festivals, school performances, inter-school competitions transform school life into a lively area of holistic development. A student learns to express themselves fearlessly, be empathetic while simultaneously engaging in physical fitness. Youthful enthusiasm that dances provide remains an indispensable aspect of a holistic education full of vitality, radiance and discipline.

Intellectual Liberation (Debates/Quizzes) :

Debate is an enriching and intellectually stimulating co-curricular activity that promotes practicality, critical inquiry, reasoned judgment and cultural awareness. It fosters a tolerant environment where logical reasoning prevails.

1. **Sharpens analytical thinking:** While debating, doing research, presenting evidence, understanding different perspectives, and logical reasoning efficiently sharpens analytical thinking. Decision-making and problem-solving become indispensable skills in debate. A structured way of thinking assists a student in classroom writing too.
2. **Articulation and Clarity:** Debating in front of an audience with an opponent requires the student to have refined pronunciation, appropriate vocabulary, speech clarity and relevant sentence structure. It is a powerful tool to hone coherent articulation that results in better persuasive communication.
3. **Intellectual Confidence:** When one defends their position and responds to counter positions in a debate, a strong sense of competence establishes itself stemming from

persuasive logical and reasoning abilities. Practicing impromptu responses helps students think on their feet and remain calm and collected. This allows the students to harbor an intellectual confidence in their knowledge base and speak authoritatively.

4. **Respect for Diverse Opinions:** When a student engages themselves in debating, it allows them to step out of their personal biases and actively engage in counter-positions. It allows them to be patient and foster intellectual flexibility. Participants also learn how to engage in complex discussions and assert their opposing arguments while maintaining dignity.
5. **Awareness of Current Affairs:** Debates compels participants to be involved in in-depth research at local, national and global levels. Topics revolve around socio-political, economic and cultural issues. Awareness of ongoing events improves civic sense and promotes responsible participation in society.

Debates emphasize on diplomacy, research and analytical thinking. Debate as a co-curricular activity, guides a student in critically examining prevailing social issues. Traditional debate takes a unique form in MUNs (Model United Nations) by shifting from individual views to representing assigned countries. Emphasis is placed mainly on collaborative negotiations.

Student involvement in various co-curricular activities is encouraged as this participation moulds them into becoming competent, confident and socially responsible individuals. Other activities such as sports and games, art and craft, literary clubs also develop leadership and social skills, build confidence and esteem, and encourages a holistic personality development.

In light of the above discussion, it becomes evident that co-curricular activities add depth, balance, creativity and vitality in school education. A classroom transforms into a lively arena where students learn with vigor, passion and curiosity. The holistic well-being of a student is nurtured along with enhanced interpersonal skills, boosted academic excellence and radiant self-confidence. Such activities provide balance and direction to youthful energy that adolescence is full of. Participation in cultural, literary and creative programmes contributes significantly to developing a harmonious school environment. Thus, co-curricular activities make space for talents to be discovered, encouraged and polished. A stable and prosperous society may only rise if its youth become capable and responsible citizens.

Social Liberation (Sports/NSS/Scouts) :**National Cadet Corps (NCC) :**

The **National Cadet Corps (NCC)** is the largest uniformed youth organization in India, functioning under the Ministry of Defence, Government of India. It aims to develop qualities of discipline, leadership, patriotism, and service among the youth of the country.

The NCC provides opportunities to school and college students to participate in military training, adventure activities, social service, and national integration programmes. Through these experiences, students develop a sense of responsibility, courage, and commitment towards the nation.

The motto of NCC, “**Unity and Discipline**”, reflects its core philosophy of fostering national unity and personal discipline among cadets.

The origin of the NCC can be traced to the formation of the University Corps in 1917, during British rule, to assist the Indian Defence Forces. After Independence, the need for a structured youth organization was strongly felt to channelize the energy of young people towards nation- building.

Accordingly, the National Cadet Corps Act was passed by the Parliament of India and came into effect on **15 July 1948**. Since then, the NCC has evolved into a premier youth organization, shaping generations of young Indians with discipline, leadership, and civic consciousness.

NCC Training Programme :

The NCC training programme is designed to inculcate discipline, leadership, and patriotism through a mix of military and community activities. Training is divided into two categories:

- 1. Institutional Training**
- 2. Camp Training**

Certificates and Examinations in NCC :

These certificates hold significant value in college admissions, job recruitments, and especially in defence services selection.

Activities of NCC :

NCC cadets engage in diverse activities such as institutional activities, social activities, adventure activities, National Level activities etc. which promote patriotism, discipline, and social awareness.

Benefits of Joining NCC :

Participation in NCC brings multiple educational, personal, and professional benefits:

- Builds discipline, self-confidence, and leadership.
- Develops a spirit of service and teamwork.
- Provides preparation and advantage for entry into Armed Forces and Civil Services.
- Offers opportunities for scholarships, awards, and foreign visits.
- Enhances personality, fitness, and civic sense.
- Fosters patriotism and national pride.

Many NCC cadets go on to serve as officers in the Army, Navy, and Air Force, while others excel in civil life with values of discipline and integrity.

National Service Scheme (NSS) :

The National Service Scheme (NSS) is a flagship Central Sector Programme of the Government of India, implemented by the Ministry of Youth Affairs and Sports. It aims to foster social responsibility, leadership, and community engagement among young students.

The NSS provides opportunities to students of Higher Secondary (+2) schools, colleges, technical institutions, and universities to participate in community service and nation-building activities. The scheme was launched on 24th September, 1969, by the then Union Education Minister Dr. V. K. R. V. Rao, in 37 universities with about 40,000 volunteers, coinciding with the Birth Centenary of Mahatma Gandhi. Since then, NSS has grown into a nationwide youth movement symbolizing selfless service, social awareness, and national unity.

With an objective to develop the personality of students through community service, NSS was designed to give an extension dimension to education, connecting classroom learning with real-life community service. It seeks to engage students in constructive social action and national development, helping them understand the challenges faced by rural and underprivileged communities. In a nutshell, the NSS bridges the gap by encouraging students

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to work in villages and slums, interact with local people, and develop an understanding of their needs, problems, and aspirations. Through this engagement, students develop empathy, social responsibility, and a practical understanding of life beyond textbooks. In essence, NSS is an extended classroom, offering real-world learning through community participation.

The symbol of NSS is inspired by the ‘Rath Wheel’ of the Konark Sun Temple in Odisha. The wheel represents the cycle of creation, preservation, and progress, symbolizing the continuous movement and dynamism of life. It reflects the NSS philosophy of service, change, and social transformation.

The NSS badge bears the symbol of the Konark wheel :

- The eight bars represent the 24 hours of the day, reminding volunteers to be ready for service at all times.
- The Red colour signifies liveliness, energy, and passion.
- The Navy blue colour symbolizes the cosmos, representing the NSS as a small yet vital part of the larger human community.

NSS Programmes and Activities :

The NSS connects **students**, **teachers**, and the **community** through meaningful activities. This harmony forms the foundation of NSS operations. Each NSS unit in a Higher Secondary School or College comprises 100 student volunteers led by a Programme Officer. Through the activities, NSS develops well-rounded individuals with strong moral and civic values.

NSS activities are divided into two major categories :

- **Regular Activities :** This type of activities are conducted in adopted villages, schools, or urban areas during weekends or after class hours. Each volunteer has to contribute at least 120 hours of service per year.
- **Special Camping Programmes :** These programmes are conducted generally for 7 days in adopted villages or slums, usually during vacations with participation of about 50% of the volunteers. In these programmes, focuses have been prioritized on specific themes like: Rural development, Water conservation, Digital literacy, Health and sanitation, Sustainable development. Examples of themes: “*Healthy Youth for Healthy India*”, “*Youth for Sustainable Development*.”

Benefits for NSS Volunteers :

Participation in NSS helps students to develop leadership and communication skills, gaining real-world exposure, experiencing the joy of selfless service and social contribution, becoming responsible, empathetic citizens etc. To recognize outstanding contributions of the NSS volunteers, Ministry of Youth Affairs & Sports instituted the National Service Scheme Awards in 1993–94. Each award carries a cash prize and certificate, honouring excellence in community service and leadership.

These awards aim to:

- Encourage volunteers to continue their commitment to social service.
- Recognize Programme Officers for effective leadership.
- Promote excellence in NSS implementation at all levels.

Bharat Scouts and Guides :

The Bharat Scouts and Guides is the national organization of India dedicated to promoting the spirit of service, discipline, and leadership among young people. It is a voluntary, non-political, educational movement for young people, open to all without distinction of origin, race, or creed. The movement aims to contribute to the development of young people in achieving their full physical, intellectual, social, and spiritual potential as responsible citizens. The organization aims to develop character, self-reliance, and leadership skills through a variety of activities such as camping, hiking, social service, and community development. Scouting was founded by Lord Baden-Powell in England in 1907. Scouting was introduced in India in 1909, and the Guiding movement began in 1911. The final merger happened on 7th November 1950, forming a single organization called “**The Bharat Scouts and Guides.**” Later, on 15th August 1951, the Girl Guides Association officially joined it. The Bharat Scouts and Guides National Headquarter is located in New Delhi.

The main aim of the Bharat Scouts and Guides is to develop good citizenship among the youth and to help them build character, discipline, and a spirit of service promoting self-reliance and leadership qualities among them.

Motto :

“*Be Prepared*” — meaning a Scout or Guide must always be ready to face any situation and help others.

Structure and Organisation :

The Bharat Scouts and Guides operate at three levels: National Level, State Level and Local level.

Membership :

- **Cubs and Bulbuls:** 5–10 years
- **Scouts and Guides:** 10–17 years
- **Rovers and Rangers:** 17–25 years

The Bharat Scouts and Guides organise various activities that combine education with adventure and service. These activities help students learn teamwork, leadership, discipline, and compassion for others. Scouting and Guiding teach young people to live in harmony with nature and to protect the environment participating in activities such as **Tree Plantation Drives, Cleanliness Campaigns, Water Conservation and Plastic-Free Initiatives, Disaster Relief and Rescue Operations etc.** Through these, Scouts and Guides contribute actively to the goals of *Environmental Sustainability* and *Community Welfare*.

Awards and Recognition :

The Bharat Scouts and Guides honour outstanding members for their service and achievements :

- **Rajya Puraskar (Governor’s Award)** – at the State level.
- **President’s Award (Rashtrapati Scout/Guide Award)** – at the National level.
- **Medals and Certificates** – for acts of bravery, social service, and leadership.

These awards encourage members to continue working for the betterment of society.

EXERCISES**? Multiple Choice Questions :**

1. NEP 2020 emphasizes:
 - (a) Rote learning
 - (b) Holistic development
 - (c) Only examinations
 - (d) Only vocational training
2. “Sa Vidya Ya Vimuktaye” means:
 - (a) Education for job
 - (b) Education for wealth
 - (c) Education that liberates
 - (d) Education for power
3. Co-curricular activities include:
 - (a) Exams
 - (b) Classroom teaching
 - (c) Arts, sports, NCC
 - (d) Homework
4. Curricular activities are:
 - (a) Voluntary
 - (b) Informal
 - (c) Part of prescribed syllabus
 - (d) Optional
5. Co-curricular activities mainly develop:
 - (a) Only academic skills
 - (b) Holistic development
 - (c) Only physical strength
 - (d) Only memory
6. The 70:20:10 model promotes:
 - (a) Only theory learning
 - (b) Experiential and interactive learning
 - (c) Only exams
 - (d) Only classroom teaching
7. Music as a CCA helps in:
 - (a) Reducing intelligence
 - (b) Enhancing cognitive ability
 - (c) Ignoring emotions
 - (d) Avoiding discipline
8. Drama improves:
 - (a) Silence
 - (b) Communication skills
 - (c) Memory loss
 - (d) Fear

9. Dance helps in:
 - (a) Physical inactivity
 - (b) Improving posture and coordination
 - (c) Reducing creativity
 - (d) Avoiding discipline
10. Debate promotes:
 - (a) Blind belief
 - (b) Logical reasoning
 - (c) Ignorance
 - (d) Silence
11. NCC stands for:
 - (a) National Cadet Corps
 - (b) National Cultural Committee
 - (c) National Civil Corps
 - (d) National Coaching Centre
12. NCC works under:
 - (a) Ministry of Education
 - (b) Ministry of Defence
 - (c) Ministry of Sports
 - (d) Ministry of Culture
13. Motto of NCC is:
 - (a) Service Before Self
 - (b) Unity and Discipline
 - (c) Be Prepared
 - (d) Truth Alone Triumphs
14. NSS was launched in:
 - (a) 1947
 - (b) 1950
 - (c) 1969
 - (d) 1980
15. NSS aims to develop:
 - (a) Only academic skills
 - (b) Social responsibility
 - (c) Only sports skills
 - (d) Only leadership
16. NSS symbol is inspired by:
 - (a) Ashoka Chakra
 - (b) Konark Sun Temple wheel
 - (c) Lotus
 - (d) National flag
17. Bharat Scouts and Guides motto is:
 - (a) Unity and Discipline
 - (b) Be Prepared
 - (c) Service First
 - (d) Learn and Earn
18. Scouting was founded by:
 - (a) Mahatma Gandhi
 - (b) Lord Baden-Powell
 - (c) Nehru
 - (d) Tagore

19. Co-curricular activities help in:
- (a) Increasing stress (b) Personality development
(c) Ignoring society (d) Reducing skills
20. NCC Act came into effect in:
- (a) 1947 (b) 1948
(c) 1950 (d) 1969

? Short Type Questions :

1. What is meant by co-curricular activities (CCA)?
2. State the importance of NEP 2020 in promoting holistic education.
3. Distinguish between curricular and co-curricular activities.
4. How does participation in debates help students?
5. Write the objectives of the National Service Scheme (NSS).

? Long Type Questions :

1. Explain the importance of co-curricular activities (CCA) in achieving holistic development as per NEP 2020.
2. Discuss the role of music, drama, and dance as co-curricular activities in the development of students.
3. Describe the structure, objectives, and benefits of the National Cadet Corps (NCC).
4. Explain the aims, activities, and significance of the National Service Scheme (NSS) in student life.
5. Discuss the role of Bharat Scouts and Guides in developing leadership, discipline, and social responsibility among youth.

MCQ ANSWERS

1. (b)	2. (c)	3. (c)	4. (c)
5. (b)	6. (b)	7. (b)	8. (b)
9. (b)	10. (b)	11. (a)	12. (b)
13. (b)	14. (c)	15. (b)	16. (b)
17. (b)	18. (b)	19. (b)	20. (b)



Indian Knowledge System

Indian Knowledge System (IKS) is described as the vast and interdisciplinary body of ancient Indian knowledge traditions. IKS encompasses fields as diverse as philosophy, mathematics, science, ayurveda, art forms, architecture, governance, etc. It represents a holistic understanding of human life and nature. This system aims to preserve and integrate these ancient pearls of wisdom into our contemporary setting. Knowledge of IKS will guide us to lead a life full of meaning and strong moral foundation. It will strengthen our inner world and equip us with techniques to reduce our stress and keep us free from anxieties obstructing us to live a calm existence. It is a well-known fact that different stages of life, ranging from childhood to old age, require different levels of preparation and a bundle of strategies. IKS gives us a number of techniques and tools to encounter challenges in various stages and walks of life with determination and courage. As a corollary, individuals empowered with Indian Knowledge System will create a society full of hope, strength and wisdom.

Indian Philosophical Systems :

Ancient Indian thinkers delved deep into spiritualism in order to comprehend the nature of the world and the meaning of our existence. This developed into a knowledge system that we know of as 'Indian Philosophical Systems'. Thinkers of these schools deliberated deeply about the relation between soul and God. Some schools had not accepted the existence of

god and attempted to explain existence in some other manner. The central areas of exploration were reality knowledge ethics and liberation. Different schools have distinct goals- some end goals are spiritual and some are comparatively materialistic in character.

Ancient philosophers explained that four fundamental goals of human life are the four 'Purusharthas' within a balanced, ethical and meaningful existence :

1. **Dharma:** It refers to duty moral order and righteousness that sustains the society, individual life and the cosmos. Dharma ensures that social harmony and the cosmic order (Rta) is in balance. In the Vedic times, Dharma was associated ritual obligations and social responsibilities. Later Bhagavad Gita redefined its meaning to include action that one must perform according to one's role in the society. Dharma is not only a religious principle but also a code of conduct that maintains justice, law, and moral responsibility in the society.
2. **Artha:** Artha refers material prosperity, financial well being and worldly resources. Indian philosophy accepts that the material dimension of life is as important and legitimate as the moral dimension of life. Basic skills and resources are necessary to support a family and live comfortably. Indian philosophy even after being spiritual in nature does not neglect the fact that pursuit of knowledge maintenance of social harmony can only happen if one's material life is not deficient. However, it does emphasize on attainment of artha through honest and dharmic means.
3. **Kama:** It denotes sensual pleasure emotional fulfillment sensory satisfaction and accepts them to be natural human instincts. Aspects of love and human relationships are explained within a positive framework. Pleasure, love and psychological values are its principal tenets. Enjoyment is encouraged only within the boundaries of Dharma.
4. **Moksha:** Moksha represents the ultimate liberation from the cycle of birth and death. It is the end goal of human life through the transcendence of worldly desires. Moksha signifies highest spiritual liberation through self realization and union with the divine. Salvation or moksha is the end goal in majority of Indian philosophical schools. Cessation of suffering and ignorance is only possible through the unity of the Atman (self) and Brahman(ultimate reality).

Indian philosophical traditions assert that a balanced life requires pursuing all four purusarthas in harmony. Over-emphasis of worldly pleasures while neglecting moral duties is believed to add to more suffering and ignorance.

Three foundational concepts of Indian epistemology (theory of knowledge) are: Prama, Pramana, Prameya. Prama is valid knowledge, Pramana is valid means of knowledge and Prameya is valid object of knowledge.

The six types of Pramanas are:

1. **Pratyaksha (perception):** Seeing a green grape and knowing it is green in colour.
2. **Anumana (inference):** Seeing the sun set and inferring that night will fall shortly.
3. **Upamana (comparison):** Learning the new taste of a mango by comparing it to an orange that you have already tasted.
4. **Sabda (verbal testimony):** Gaining knowledge of faraway places from travellers' accounts.
5. **Arthapatti (presumption):** A plant is thriving because it is being taken care of regularly.
6. **Anupalabधि (non-perception):** A classroom is quiet because of the absence of students that make sound.

The core relationship of these three concepts can be explained through: Pramāṇena prameyam pramāṇam —the object is known through the means of knowledge. When a knower of knowledge (Pramata) uses a valid means of knowledge (Pramana) on an object of knowledge (Prameya), it results in achieving valid knowledge (Prama).

Indian philosophical schools are classified into Astika (Orthodox) and Nastika (Unorthodox) in accordance to their acceptance of Vedic authority.

The Astika schools consider the Vedas an authoritative source of knowledge. There are six philosophical schools that are considered as Astika schools.

1. **Nyaya :** Founded by Sage Gautama, Nyaya is the school of logic and methodology. It is the most well-known for its exploration of epistemology. Nyaya thinkers believed that human suffering stems from ignorance and this ignorance can only be removed through 'Right Knowledge'. Nyaya recognizes four valid means of knowledge: perception, inference, comparison, and verbal testimony. It states that only right knowledge will lead to Moksha. Right knowledge means understanding the true

nature of soul, self and reality by getting rid of false knowledge, that is ignorance and delusion. The Nyaya Sutras composed by Akshapada Gautama in 2nd century BCE is a foundational text of the Nyaya philosophy.

2. **Vaisheshika:** Founded by Kanada Kashyapa, Vaisheshika school is known for theory on naturalism, a form of atomism in natural philosophy. It explains the universe through atomism and classification. The Vasheshika school gives importance to the discussion of material elements. It asserts that everything in the physical world is made of indivisible and indestructible particles called paramanu (atoms). It holds that reality is composed of five substances, i.e., earth, water, air, fire, and space. These substances when combined produce new objects. Vasheshika divides everything around us into seven categories of reality- dravya (substance), guna (quality), karma (activity), samanya (commonness), vishesha (particularity) and samavaya (inherence). Although Indian philosophical thought took a scientific turn here, its core beliefs were still concentrated on God, salvation and spirituality. Vaisheshika accepts the two pramanas of pratyaksha and anumana. Vaisheshika Sutras, compiled by Kanada sometime between 6th and 2nd century BCE hold the earliest systematic composition of the school of thought.
3. **Samkhya:** Attributed to Sage Kapila, Samkhya advocated for a dualistic realism between two eternal realities - Prakriti (unconscious matter) and Purusha (conscious spirit). Purusha is absolute, independent, free, and above any experience by mind or senses. Prakriti is active, unconscious and fluid in movement. Prakriti is in balance with three gunas or innate qualities namely Sattva (goodness), Rajas (Passion) and Tamas (darkness). When the moving Prakriti comes into contact with the static Purusha, evolution happens. The equilibrium of the three Gunas is disturbed, leading to the creation of mind, ego, senses and the physical world. Ignorance and suffering in the world arises when conscious Purusha falsely identifies itself with the fluid Prakriti. Liberation or Moksha is when the absolute consciousness or Purusha understands that it is eternally separate from unconscious matter. Samkhya accepts three pramanas: pratyaksha, anumana and sabda. The earliest classical formulation of Samkhya is found in Isvarakrsna's 'Sankhya-Karika', composed around 350 CE.

4. **Yoga:** Founded by Sage Patanjali Yoga School focuses on achieving self realization and liberation through mental and physical discipline. Practice of control over mind, body, senses is central to this system. It provides a systemic eight fold path called Ashtanga Yoga that leads to attainment of liberation. Samkhya philosophy is the metaphysical conceptualization of Yoga philosophy. In Yoga, insight and self-restraint are core values to attain moksha. It relies on the same three pramanas as Samkhya: pratyaksha, anumana and sabda. Yoga philosophy differs from Sankhya philosophy by incorporating the concept of a “personal, yet essentially inactive, deity” or “personal god” (Ishvara). The key text Yoga philosophy is Yoga Sutras of Patanjali, possibly composed in the end of the 1st millennium CE.
5. **Mimansa:** Founded by Sage Jaimini, this school of thought is focused on the ritualistic sections of the Vedas and the nature of Dharma. Mimansa literally means the art of reasoning or critical investigation. This tradition of reasoning was used to provide justifications for various Vedic rituals. The Mimansa school focused on the later portion of the Vedas, i.e the Upanishads. The Mimansa School is deeply orthodox and argues that the authority of the Vedas is eternal and the power of the sacred word is paramount. This school developed intricate rules of linguistics to interpret Vedic commands. For Mimamsa thinkers, attainment of heaven is strictly possibly through steadfast performance of the Vedic rituals and social duties. The school is also known as Purva-Mimansa or Karma Mimansa. The Mimansha school accepts all six Pramanas as reliable sources of knowledge. Purva Mimansa Sutras of Jaimini (c. 3rd to 2nd century BCE) is a foundational text for the Mimansa school.
6. **Vedanta:** Also known as Uttara Mimansa, the Vedanta school concentrates on the philosophical teachings of the Upanishads. It enquires into the nature of Brahman and Atman. Based on their interpretation of the relationship between the Brahman and the Atman, the Vedanta school is divided into six sub-schools: Advaita(non-dualism), Vishishtadvaita(qualified non-dualism). Dvaita(dualism), Dvaitadvaita(dualism-nondualism), Shuddhadvaita(pure nondualism), and Achintya Bheda Abheda (Inconceivable Oneness and Difference). Each school offers a unique perspective on dualism, non-dualism and their combination of the relation between

the Brahman and the Atman. Verbal testimony, in the form of scriptures, is its main source of knowledge. The main Upanishads, the Bhagavadgita and the Brahma Sutras, collectively called the Prasthanatrayi are the foundational scriptures in Vedanta.

The Nastika Schools strongly detested the authority of the Vedas and emerged as a challenge to the ritualistic dominance of the priestly class.

1. **Charvaka :** It is considered the main expounder of materialistic and hedonistic Indian philosophy. Also known as Lokayata philosophy or philosophy of the masses, Charvaka rejects the authority of the Vedas, the existence of god, karma, the afterlife and the soul. Charvaka philosophy entirely focuses on maximizing pleasure and minimizing pain in the present life. It developed in 1st Millennium BCE and Brihaspati is traditionally referred to as its founder. Some scholars also claim Charvaka, a philosopher who lived in about 6th century, as the actual founder. Charvaka philosophy shows a lack of belief in the other world and highlighted the importance of being present in the current world (loka). A radical and empirical school, Charvaka rejects anything that cannot be perceived. Naturally, the only pramana that Charvaka accepts is Pratyaksha. Instead of emphasizing on the divine and the spiritual, Charvaka centers human beings. The primary text 'Brihaspati Sutra' is not extant.
2. **Buddhism:** Founded by Siddhartha Gautama in or about 6th century BCE Buddhism arose as a challenge against the rigid Vedic ritualism and varna system. It denies the authority of the Vedas and the existence of a permanent soul. Buddhism views the self as a collection of changing mental and physical aggregates. This school teaches the Four Noble Truths and the Eightfold Path. The Four Noble Truths are: life is suffering, suffering is caused by desire, suffering can end, the path to the end is the Eightfold Path. The final stage of Buddhism is the attainment of Nirvana or enlightenment by extinction of greed, hatred and delusion within self. The orientation of this school is spiritual but it is atheistic. The oldest surviving Buddhist manuscripts are the Gandharan Buddhist texts found in Pakistan, dated between 1st century BC and 3rd century CE.

3. **Jainism:** Jainism originated around 1st century BCE. Jainism emphasizes a path of extreme non violence , asceticism and self discipline to attain liberation and relieve oneself from the circle of rebirth. The five main vows of conduct in Jainism are: ahimsa(non-violence), satya(truthfulness), asteya(non-stealing), brahmacharya(chastity), and aparigraha(non-attachment to material positions). Jain thinkers believed that the soul(jiva) is trapped in a cycle of rebirth and harmful actions accumulate in bad karma. Jainism focuses on becoming a conqueror (jina) of rebirth rather than worshipping a creator or deity. There are 24 Tirthankaras or Supreme teachers who have conquered the cycle of rebirth. Mahavira is the 24th and final tirthankara of this cosmic age. Moksha or liberation of the soul can be achieved by following the Three jewels (Ratnatraya): Right Faith, Right Knowledge and Right Conduct. Jain thinkers believed in a multifaceted nature of reality (Anekantavada). The foundational texts of Jainism are the Agamas, a collection of scriptures containing the teachings of Lord Mahavira.

The study of Indian philosophical systems offers a broad understanding of the diverse intellectual heritage of the Indian subcontinent. These ancient thinkers systematically inquired logics, ethics and the nature of reality. Even though liberation was the main objective of most of these philosophical schools they placed knowledge and truth on a high scholarly pedestal. Rigorous study of these systems gives us a glimpse of the debate, dissent and perspectives on social equality that were prevalent in those times

Vedic Mathematics :

Vedic Mathematics is a holistic system of mathematical techniques and practices that developed during the Vedic period or the Vedic Age in ancient India (1500-500BCE). The salient feature of Vedic Mathematics is its emphasis on mental calculation, pattern recognition and logical reasoning. This system is built on efficiency and its aim is to make calculations more speedy and accurate. Vedic mathematics is not a codified system or a set of rules, but a tradition that evolved in relation to ritual practices, astronomy, measurement and daily practical applications. The oldest sources of this knowledge system are the Vedas and their auxiliary texts known as the Vedangas. These provide evidence for the use of large numbers by the time of Yajurvedasamhita (1200-900 BCE). Numbers as high as 10^{12} were being

included in the texts for ritual practices and mantras. Terms such as *æata* (hundred, 10^2), *sahasra*(thousand, 10^3), *prayuta*(million, 10^6), *samudra*(billion, 10^9), *parardha*(10^{12}) are used to invoke powers in these mantras. Fractions are mentioned in the Purusha Sukta (hymn) of the Rigveda.

The Sulba Sutras (Aphorisms of the Chords) dated approximately between 700-400 BCE, specifically mentions rules for the construction of sacrificial altars. Its “single theological requirement” lies within constructing altars that have different shapes but occupy the same space. Japanese historian of mathematics, Takao Hayashi, states that the Sulba Sutra contains “the earliest extant verbal expression of the Pythagorean Theorem in the world, although it had already been known to the Old Babylonians.” The Baudhayana Sulba Sutra, the best-known Sulba Sutra composed by Baudhayana (c.8th century BCE), contains simple Pythagorean triplets such as: (3,4,5), (5,12,13), etc. The techniques of Vedic mathematics may be used as supplementary tools for formal education systems. Exploration of vedic mathematics encourages mental agility, speed and efficiency, and confidence in dealing with mathematical issues.

Indian Astronomy :

An ancient and traditional system, astronomy in the Indian context finds its earliest roots in the Indus Valley and Vedic periods. It evolved as a discipline of observation, computation and cosmological thought. Time is extensively discussed in ancient Indian texts. In Rigveda, we find descriptions of time as a wheel with 12 parts and 360 spokes (days) with a remainder of 5 days. The movement of heavenly bodies and the course of the year are some notions that are present in the Vedas. Astronomers kept track of solstices and other planetary events. We find references of solstice in Mahabharata and subsequent works. Vedic Astronomy was primarily used for timing rituals and understanding seasonal-cycles. Hindu cosmology revolves around a cyclical notion of time. Described earliest in the Rigveda, time is a repeated process of creation, preservation and destruction as opposed to a linear progression of time. The division of time goes as : 4 Yugas(ages) form a Mahayuga, 1000 Mahayugas form a Kalpa which supposed to denote one day of Brahma.

The oldest known text is the ‘Vedanga Jyotisha’ dated to 1400-1200 BCE. The extant form is traced to be around 700 to 600 BCE. It includes information about the Moon, the

Sun, nakshatras, lunisolar calendar. The Atharvaveda lists 27 stars. Some of them include: Ashwini, Bharani, Krttika, Rohini, etc. Many of them correspond to later Nakshatras which were used as celestial markers in the heavens in astronomy. Ancient Pragjyotishpura, the earlier name of Assam, was often described in contemporary texts as the ‘city of Eastern astronomy’. A deep connection of astrology and religion is highlighted in this region by the construction of the Navagraha temple, devoted to the nine planets of the solar system. Key celestial bodies such as the Pole Star (Dhruva) and Ursa Major (Saptarshi Mandal) held important positions in folklore and rituals of ancient Assam. The 10th century AD text Kalika Purana observes astronomical elements and descriptions within its narrative. Aryabhata, Varahamihira, Brahmagupta are notable scholars who brought significant contributions in Indian astronomy. In Aryabhata’s work ‘Aryabhatiyam’, he seems to ascribe the apparent motion of the stars to a relative motion caused by the rotation of the Earth. Solar and lunar eclipses were also scientifically explained by Aryabhata through shadows cast by and falling on earth. Eighth and ninth centuries witnessed a large scale influence of Indian astronomical works westwards of India. Particularly during the Abbasid Caliphate,

Islamic scholars such as Muhammad al-Fazari and Muhammad al-Khwarizmi translated substantial Indian astronomical works into Arabic. Two key texts include Brahmasphutasiddhanta and Khandakhadyaka, both authored by Brahmagupta (c. 598-668 CE).

In continuation of the tradition of cosmological discussion and application, we find construction of observatories by Raja Jai Singh II of Amber in Delhi, Ujjain, Banaras, Jaipur, Mathura between 1724-1730 AD. However, the observatory in Mathura is not extant. The most widely known astronomical observatory is Jantar Mantar. In modern-day India, the establishment of Indian Space Research Organisation (1969) expanded the legacy of astronomy of the bygone generations. The Aryabhata satellite, launched on 19 April 1975, was the country’s first satellite mission. Modern facilities like the Indian Astronomical Observatory at Hanle (Ladakh), situated at a height of over 4,500 meters, facilitate optical and infrared observations. The country has large radio telescopes like the Giant Metrewave Radio Telescope (GMRT), which are part of international astrophysical research.

Conclusion :

Indian astronomy began with ritual practices and progressed to accurate mathematical models of planets and architectural observatories. Modern institutions extend this ancient legacy into global space research and astrophysics.

Yoga and Meditation :

Yoga and Meditation may be considered two of the most profound and enriching spiritual contributions of India to the world. Designed to harmonize the mind, body and spirit, yoga and meditation are the spiritual counterparts of the unity that forms the foundational basis of Indian cultural heritage. Yoga is a group of mental, spiritual and physical practices that originated with its own philosophy in ancient India. The aim of Yogic practices was to control the body and attain liberation. These discussions and prescriptions can be found in Hindu, Jain and Buddhist traditions. Yoga is a Sanskrit noun derived from root word “yuj” which means “to attach, join, harness, yoke”. It is a spiritual discipline that is achieved through physical restraint and flexibility. Philosopher Mikel Burley states that the first use of the word ‘yoga’ is found in a hymn in the Rig Veda as a dedication to the rising sun God and it has been interpreted as “control”.

The seminal work in classical yoga philosophy and practices was done by Patanjali with his compilation of “Yoga Sutras” in the early centuries CE. Patanjali collected and organized knowledge about yoga from Samkhya, Buddhism, and older Yoga traditions.

Patanjali defines Yoga in his sutras as: *yogaḥ-citta-vṛtti-nirodhaḥ*: “Yoga is the inhibition (*nirodhaḥ*) of the modifications (*vṛtti*) of the mind (*citta*).” Swami Vivekananda translates the sutra as “Yoga is restraining (*nirodhah*) the mind-stuff (*citta*) from taking various forms (*vrittis*).” Patanjali classified classical yoga as Ashtanga Yoga meaning 8 limbs of yoga. The eight limbs are:

1. Yama – External disciplines (eg. non-violence, truthfulness)
2. Niyama – Internal disciplines (eg. contentment, cleanliness)
3. Asana – Postures
4. Prâṅgâyâma - Breath control
5. Pratyâhâra - Withdrawal of the senses

6. DhâraGâ - Concentration
7. Dhyâna - Meditation
8. Samâdhi – Union, integration with the self

Hatha Yoga, a branch of yoga, is a traditional system of physical and mental training in Indian spiritual practice. It aims to create a balance between the body and mind, which leads to spiritual awakening and self-realization.

Hatha is a Sanskrit word that literally means ‘force’ implying physical techniques. The oldest use of this terminology can be found in Vajrayana Buddhist texts.

Asanas, pranayama and meditations are physical yoga practices that emphasize bodily purification and rejuvenation.

The earliest references of yoga can be found in the Vedas. The Rigveda, Yajurveda and Samveda refer to ritualistic and meditative practices where ideas such as austerity, concentration and cosmic order are emphasized to reach spiritual goals.

The Upanishads witness a shift from rituals to inward discipline. In this period, meditation assumes a distinctive dimension that acts as a tool in achieving self realization and union between Atman (self) and Brahman (ultimate reality). Here, a metaphysical framework of yoga is shaped into existence.

In Jainism, Yoga and meditation are central instruments with which liberation or Moksha can be achieved through purification of soul or jiva. The central tenets of Jain yoga are the three Jewels : Right faith, right Knowledge and right Conduct. It is believed that karmic particles that bind the soul to the cyclical birth and death can be eliminated through practice of meditation.

The primary path to enlightenment in Buddhist traditions is meditation. The Noble Eightfold Path lists right mindfulness and right concentration as essential practices. Meditation aims to instill in an individual awareness, concentration, wisdom, and compassion. Before enlightenment can be achieved, meditation guides the physical, energetic and mental state of a person to reach a controlled equilibrium. Enlightenment in Buddhism can be achieved by overcoming suffering through meditation.

The Bhagavad Gita, dated around 400BCE-400CE, defines a three-fold path of Yoga or three-fold avenues of progress in Yoga:

1. Karma Yoga – Path of Action
2. Jnana Yoga- Path of Wisdom or Knowledge
3. Bhakti Yoga- Path of Devotion

These paths are not mutually exclusive and are tailored in a disciplined way to attain liberation without renunciation of social duties.

In present times, the importance of holistic well being cannot be disregarded. Mental pressure and the relentless pace of life often add to disequilibrium in life. Yoga and meditation here act as a conduit to enhance the quality of life.

Yoga and meditation help in stress regulation, achieving mental clarity, leading a structured and disciplined life and building emotional resilience. Yoga aids in connection of breath to movement and meditation aids in connection of breath to thought.

Today yoga is practiced in over one 90 countries and June 21 is observed as the International Day of Yoga. Yoga and meditation are being increasingly integrated into education healthcare corporate life. This ensures cultural continuity and increased quality of life.

Ayurveda :

Ayurveda is one of the oldest Traditional System of Medicines (TSMs) in the world with its roots in the Indian subcontinent. It is a holistic system of medicine that focuses on balancing the body, mind and spirit through natural remedies. The ancient Indian physicians studied anatomy and devised methods to diagnose illnesses and maladies. The prescribed medicines were based on herbal treatments, customized diets, lifestyle adjustments and detoxification. The term ‘ayurveda’ is composed of ‘ayus’ (life or longevity) and ‘veda’ (knowledge), together meaning knowledge of life and longevity. The origin of ayurveda can be found in the text of Atharvaveda (2nd millennium BCE). The earlier medicines and techniques were burdened with magical charms and spells and were not very scientifically developed. Two of the foundational pioneers of transforming Ayurveda into a systemic traditional medicine were Sushruta and Charaka. In Sushrutasamhita, Sushruta mentions 121 implements to be used for surgery. His writings on rhinoplasty, operating cataract, stone disease, diabetes exhibit his medical prowess. The treatise of Sushrutasamhita discusses all aspects of general medicine, including diet, surgery, nosology, anatomy, developmental biology, therapeutics, toxicology, paediatrics and other subjects. Sushruta deeply emphasized the importance of cleanliness and hygiene.

Charaka's Charakasamhita is an extensive treatise akin to a medicinal encyclopedia. Charaka lists various types of fever, leprosy, hysteria and tuberculosis. He noted the importance of maintaining a balance among the three doshas (vatta, pitta, kapha) which are classified as the three fundamental biological energies in a human. The treatise contains a large amount of information on ancient flora and chemistry. Charaka emphasized internal medicine and preventive care. The aforementioned two treatises along with another text, Ashtanga Hridayam Samhita (composed by Vagbhata) together form Brhat-Trayi- "The Great Triad (of Compositions). These texts form the core knowledge base of the Indian medicinal system of Ayurveda. Today, Ayurveda continues to be practiced in India and in a global level. The Indian Medical Council, set up in 1971, recognizes Ayurveda as a suitable qualification in Indian medicine. Focused on both preventive and curative care, Ayurveda is a holistic way of life for achieving health and spiritual attainments.

Indian Art Forms :

Indian performing arts are a sophisticated amalgamation of spiritual devotion, artistic expression and aesthetic discipline. Indian dance and music traditions find their roots dating back over 3000 years. Elements like rhythm, melody, gesture, poetry and spiritual philosophy blend in refinement and grace. Natyashastra, attributed to the sage Bharata and dated between 200 BCE and 200 CE, is a Sanskrit treatise on the Indian performing arts. This treatise is a powerful influence on dance, music and literary traditions in India. An important concept asserted here is the 'Rasa' theory which describes that 'entertainment is a desired effect of performance arts but not the primary goal, and that the primary goal is to transport the individual in the audience into another parallel reality, full of wonder, where they experience the essence of their own consciousness, and reflect on spiritual and moral questions'.

Music :

Indian musical traditions find their earliest documentation in Vedic chanting. The hymns in Rigveda were recited, whereas the chants in Sama Veda were sung. Accordingly, Sama Veda is also known as 'The Veda of Melodies and Chants'. The Sama Veda chants are a fusion of older melodies and Rigveda verses. It also lists all the score modifications and notated melodies.

The Natyashastra mentions Vedic songs and discusses non-vedic songs in 130 verses. It systematically treats the theory and instruments of Indian music. Musical instruments are classified into four categories: stringed, solid, covered, hollow. Natyashastra explains how different elements in music can operate together to invoke specific emotional states or Rasas. It also applies a sophisticated mathematical framework of 22 shrutis or microintervals of musical tones in an octave. Indian classical music developed into two distinctive performance systems around the 13th and 14th centuries: Carnatic Music and Hindustani Music. Both are built on foundational pillars of Tala (rhythm) and Raga (melody), however, they differ in structural origin, composition and aesthetic focus.

The primary focus of Carnatic music is on composition (sahitya)- especially kriti, a form of composition developed between 14th and 20th centuries. Most compositions are meant to be sung in singing (gayaki) style. Typical instruments include veena, chitraveena, kanjira, morsing, ghatam and venu flute. Carnatic music originated in Karnataka and spread through Andhra and Tamil regions.

Hindustani classical music is a synthesis of traditional Hindu systems merged with Persian and Islamic influences. It diverged from Carnatic music around 12th century AD. It focuses on improvisation and exploration of Raga. A slow, unmetred introduction called Alap continues into the raga. Dhrupad, Khyal and Tarana are the major vocal styles associated with this system of music. Hindustani classical music is an integral part of North Indian culture. It is taught through a network of schools called 'gharana'. Core instruments include sitar, sarod, bansuri and tabla. The Bhakti and Sufi movements played pivotal parts in popularizing devotional music. Love, compassion, respect and tolerance used to be conveyed through musical medium. These movements flourished across the Indian subcontinent during 8th to 17th centuries.

Indian music remains a living tradition of spirituality and exploration of human emotions.

Dance :

In ancient Indian tradition dance assumes a 'divine' formation. It began as a form of worship and can be linked to ritual and temple practices. Young girls, designated as 'Devadasis', dedicated their lives to worship of Gods and learned classical dances. These girls became the protector of arts. The Natyashastra defines two pillars of dance: Nritya and Nritta. Nritya

refers to pure, rhythmic and technical movements without conveying anything specific. Nritya combines these movements with expressive storytelling through addition of emotions (bhava), sentiments (rasa), hand gestures (mudras) and facial expressions.

Over time, Indian dance evolved into two forms, each with codified techniques and regional distinctions: Classical Dance (Shastriya Nritya) and Folk Dance (Lok Nritya).

Indian Classical Dance or Shastriya Nritya : These are systematized dance forms rooted in the Natyashastra. They focus on bhava and rasa. The Sangeet Natak Akademi recognizes eight classical dance forms, namely, Bharatanatyam, Kathak, Kathakali, Kuchipudi, Manipuri, Mohiniyattam, Odissi, and Sattriya. Storytelling, elaborate movements, and strict grammar form the central principles of this dance system.

Folk Dance or Lok Nritya : Folk dances are community-driven and of the people. Often originating in rural spaces, folk dances are celebrated during harvests, festivals or social occasions like weddings or births. These focus on group harmony and community rhythm. Folk dances are based on folklore and oral traditions. They are living archives that preserve historical narratives passed down through generations. Indian performance arts reflect a dynamic relation between preservation and transformation. The survival and evolution of these practices is attestation to guru-shishya parampara (teacher-student lineage), a sacred relation that produces expressions fit to bridge the gap between the mundane and divine. Today, universities, conservatories, and international academics formally teach these art forms. Multiple artistic traditions find preservation in UNESCO list of Intangible Cultural Heritage.

Town Planning, Governance and Public Administration :

Town Planning :

Indian engineering can be traced to the ancient Indus Valley Civilization (c. 2600 BCE-1900 BCE). The urban centers of the Indus Valley Civilization such as Mohenjodaro, Harappa, Dholavira, Lothal display some of the earliest examples of systemic town planning. These urban centers are renowned for their grid-based town planning and standardized uniform measurement systems.

Some of the key components the Indus Valley Civilization Town Planning are:

1. **Grid-system:** The streets of these preplanned grid systems intersected at perfect right angles forming rectangular blocks. The main streets ran in cardinal directions suggesting astronomical and environmental deliberation. The residential spaces were connected by systematized secondary lanes.
This geometric precision implies a central form of authority and surveying systems.
2. **Advanced Draining System:** The underground drainage system of the Indus Valley Civilization was more advanced than that of any other civilization at that time. Almost every house had a bathroom with a sloping floor that connected to covered brick drains that ran along the streets. These drains were covered with removable slabs for cleaning. Add regular intervals, soak pits in these drains collected solid waste before entering the central drains. The great part of Mohenjodaro is an architectural marvel showcasing hydraulic engineering skills. Presumably a community bath used for sacred reasons, this bath was sealed airtight using bitumen.
3. **Standardized Architectural Materials:** The Harappans might have been the first to implement Standardization on construction materials on a mass scale. The standardized baked bricks ratio 1:2:4 remained structurally uniform across sites like Dholavira, Lothal, Mohenjodaro. Both sun-dried and kiln-burnt bricks were used, the latter proving to be more waterproof and durable. Economic regulation is reflected in usage of standard cubical weights made of chert in trade.
4. **City-Layout:** Most major Harappan cities were divided into the citadel and the lower town based on social hierarchy. The citadel was located in a raised mound in the western part and housed elites and public buildings. Public buildings such as the Great Bath and the Granary were located here. The Lower Town was located in the eastern side and housed common citizens. The town planning had a strict grid system and it had defensive walls.
5. **Water Management:** Water management and reservation constituted a central part of urban planning in the Indus Valley civilization. In Dholavira, where water was scarce, we find a complex system of massive reservoirs constructed to store rainwater and seasonal stream flow. The Lothal Tidal Dockyard is considered one

of the world's earliest artificial dockyards. A sluice gate and spill channel was used to manage water levels. This structure required an elaborate understanding of tides and water pressure.

The decline of the Indus Valley Civilisation was followed by the Vedic Age (1500 BCE – 500 BCE). The early Vedic society was rural and clan based in nature. Grama (village) was the primary social unit. With the growth of agricultural surplus, these evolved into Nagara (cities) or Pur (fortified towns). Permanent dwellings, storage facilities and defined settlement boundaries began to appear. Ancient Rajagriha, present-day Rajgir, had massive stone walls encircling the settlement. Deep water-filled moats surrounded the cities as described in texts such as the Arthashastra. Gateways were strategically placed so that movement could be regulated and placed under security supervision. These gateways also served as intricate symbols of a city's identity. Settlement orientations were influenced by the concept of the Vedic Cosmic order (rita). Cardinal directions were prioritized when designing layouts. Dense settlements were built in fertile river banks of Ganga and Yamuna rivers. The Classical Age of India (c. 300 BCE -600 BCE) is highly characterized by organ imperial urbanism. Town planning became a state sanctioned activity. Under the Mauryas, the city of Pataliputra flourished. Contemporary Greek traveler Megasthenes describes the city to be of a rectangular shape, surrounded with a ditch and a wall. Another Greek traveler, Strabo, describes the walls to be made of wood and the city shape to be that of a parallelogram. He also talks of openings in the wooden wall through which arrows may be discharged. The ditch serves as a both defense and drainage system for the city. A zoning system was also prescribed by the Arthashastra that mandated specific zones for occupations such as artisans, merchants and officials. The Arthashastra had chapters dedicated to domestic architecture ports and town planning. The precursor of the modern Grand Trunk Road was built by the Mauryas, which they called the Uttarpatha. This road connected the cities of Purushapura, Takshashila, Hastinapura, Kanyakubja, Prayag, Patliputra and Tamralipta, a distance of around 2,600 kilometres. Sources state that Chandragupta Maurya had a whole army of officials overseeing the maintenance of this road. The Early Medieval Age (c.600 CE-1200 CE) sees a shift to temple-centered urbanism. Towns, especially in South India, evolved around temples. Temples became economic, religious and sacral centers. Markets, water tanks, and residential areas

developed around these temples. Reference has to be made of Vastu shastra a theoretical and textual foundation of Indian science of architecture. It is a kind of spiritual geometry that puts emphasis on harmony with natural forces, such as sunlight wind and the panchabhoota (earth, water, air, fire, space). It aims to provide a holistic well being through settlement planning and detailed orientation, proportion and construction. Vastu Shastra influenced urban planning. Vastu Shashtra texts such as Manasara, Mayamata may be mentioned.

Governance :

In ancient Indian traditions, governance is intrinsically linked to spirituality. Early vedic societies were organized into tribes. The chief of a tribe was called the rajan. His power was usually restricted by the two bodies called Sabha and Samiti. The rajan had a simple court attended by courtiers(sabhasad) and chief of sects(gramani). In the Atharva Veda, we find descriptions of Sabha and Samiti as the two daughters of Prajapati (the creator). These two assemblies played essential roles in stability of the state system. The Sabha was an exclusive council of elders and the ones with power. It was a judicial and advisory body that acted as a court of justice. Samiti was a less exclusive body of the common tribesmen. Here, the people collectively discussed matters regarding war, peace, resources and election of the rajan. In later Vedic traditions, we find the rajan gaining more autonomy. The tribes, by now, had consolidated to rudimentary kingdoms with basic administrative structures. The primary responsibilities of the rajan were to maintain social order and protect the rashtra(polity). As society progressed, the role of balancing the king that sabha and samiti were committed to, transferred to the moral obligation of Rajadharma (duty of the king). The ruler was the servant of his subjects (dasa) and his legitimacy of the ruler depended on his ability to serve his subjects adequately. To implement this Rajadharma, Kautilya codified the Saptanga Theory (The Seven Limbs of the State) which perceived the state as an organic entity have seven limbs. Appointments depended on merit and capability. The stability of the state depended on the correct functioning of these limbs:

1. Swami (the ruler)
2. Amatya (the ministers)
3. Janapada (the territory and the people)
4. Durga (fortified capital)

5. Kosha (treasury)
6. Danda (army)
7. Mitra (allies)

The Arthashashtra is a significant work of Indian political philosophy, authored by Kautilya. This treatise encompasses economic strategies, principles of statecraft, administrative guidelines, military tactics, etc. Ancient India also had thriving gana-sanghas or oligarchic republics. These republics developed between 6th and 4th centuries and power was shared among a council of elders. Among the 16 mahajanapadas (kingdoms and aristocratic republics) of ancient India, Vajji and Mallakas were governed by gana-sanghas. According to Buddhist texts, gana mukhya (chief) and sangha (a deliberative assembly) are two vital components of a gana-sangha. These systems demonstrate that these political traditions of governance in India have deep roots in ethical responsibility, administrative coherence and civic balance.

Public Administration :

The foundation of Indian public administration is found in Kautilya's Arthashashtra. As we have already discussed rajadharma, therefore, we understand that this system focused immensely on the moral character of the administrator. The policies were based on dharma-moral law. According to Kautilya, an ideal administrator must possess the quality of Atma-sampat which means self-mastery. For, a person who cannot govern themselves cannot and must not govern a state. Yogakshema is an objective where the government not only aids in prosperity of the people but also safeguard them in that property. Kautilya places the duty of Yogakshema solely on the ruler and the administrative apparatus. The government must ensure fair trade and provide relief during natural disasters. The vulnerable population such as the orphans, the old, the destitute, the ill must be protected by the government. The government must also protect the population and the resources skillfully by building forts, maintaining an army and providing a clean and accessible environment. The text identifies almost 27 administrative departments. An apt observation of Kautilya in Arthashashtra is that governing a huge empire required territorial decentralization. The Empire was divided into provinces (janapadas), districts (pradesas) and villages (grama). The janapadas were governed by royal family or high ranking officers, the districts were administered by pradesika officers and the villages were overseen by gramika (village headmen). Physical evidence of this decentralized

system is found in the Uttaramerur Inscriptions (10th cen. CE) of the Chola empire. These inscriptions act as a village constitution. They describe a unique system called Kudovalai, a lot system. Here, candidate names were written on palm leaves, put inside a pot and picked by a child in order to ensure neutrality. Each village was divided into 30 wards. For public officials, the Chola government held strict criteria such as: To be eligible for membership in the village council, a person had to own their own house, be a landowner and be well-versed in Vedas. The Chola administration also prioritized water management. They constructed huge stone dams and intricate canal systems to distribute water from the Kaveri river. They also conducted regular land surveys to ensure that people were taxed fairly and on the basis of fertility of soil. This legacy of ethical governance and administrative expertise influences modern political Panchayati Raj and other ethical civil services.

EXERCISES

? Multiple Choice Questions :

1. Indian Knowledge System (IKS) includes:
 - (a) Only science
 - (b) Only philosophy
 - (c) Multiple disciplines like science, art, and governance
 - (d) Only religion
2. The four Purusharthas are:

(a) Dharma, Artha, Kama, Moksha	(b) Truth, Love, Peace, Non-violence
(c) Yoga, Meditation, Ayurveda, Science	(d) Knowledge, Power, Wealth, Fame
3. Dharma refers to:

(a) Wealth	(b) Duty and righteousness
(c) Pleasure	(d) Liberation
4. Artha means:

(a) Spiritual freedom	(b) Moral duty
(c) Material prosperity	(d) Meditation

5. Moksha signifies:
(a) Wealth (b) Pleasure
(c) Liberation from cycle of birth and death (d) Knowledge
6. Prama means:
(a) Object of knowledge (b) Valid knowledge
(c) Method of knowledge (d) Ignorance
7. Pratyaksha refers to:
(a) Inference (b) Comparison
(c) Perception (d) Presumption
8. Nyaya school is mainly related to:
(a) Rituals (b) Logic and reasoning
(c) Meditation (d) Art
9. Vaisheshika philosophy explains:
(a) Yoga (b) Atomism
(c) Meditation (d) Ethics
10. Samkhya philosophy believes in:
(a) One reality (b) Two realities (Prakriti and Purusha)
(c) No reality (d) Only material world
11. Yoga philosophy was founded by:
(a) Gautama (b) Patanjali
(c) Kapila (d) Jaimini
12. Mimamsa school focuses on:
(a) Logic (b) Rituals and Vedas
(c) Meditation (d) Atomism
13. Vedanta is based on:
(a) Vedas (b) Upanishads
(c) Arthashastra (d) Ramayana
14. Charvaka philosophy accepts only:
(a) Inference (b) Comparison
(c) Perception (d) Testimony

15. Buddhism was founded by:
(a) Mahavira (b) Buddha
(c) Patanjali (d) Charaka
16. Jainism emphasizes:
(a) Violence (b) Non-violence
(c) Wealth (d) Power
17. Vedic Mathematics emphasizes:
(a) Memorization (b) Mental calculation and speed
(c) Writing only (d) Ignoring logic
18. Aryabhata is known for:
(a) Medicine (b) Astronomy
(c) Art (d) Dance
19. Yoga means:
(a) Separation (b) Control and union
(c) Ignorance (d) Wealth
20. Ayurveda focuses on:
(a) Only surgery (b) Balancing body, mind, and spirit
(c) Only herbs (d) Only diet

? Short Type Questions :

1. What is meant by the Indian Knowledge System (IKS)?
2. Name the four Purusharthas and explain their importance in human life.
3. What are Prama, Pramana, and Prameya in Indian philosophy?
4. Distinguish between Astika and Nastika schools of philosophy.
5. What is the significance of Yoga and Meditation in modern life?

? Long Type Questions :

1. Explain the concept of Indian Knowledge System (IKS) and discuss its importance in modern life.
2. Describe the four Purusharthas and explain how they help in achieving a balanced life.

Chapter - 5 :: Indian Knowledge System

3. Discuss the major Astika schools of Indian philosophy and their key features.
4. Explain the contribution of Yoga and Meditation to physical, mental, and spiritual well-being.
5. Describe the development and significance of Ayurveda as a traditional system of medicine in India.

MCQ ANSWERS

1. (c)	2. (a)	3. (b)	4. (c)
5. (c)	6. (b)	7. (c)	8. (b)
9. (b)	10. (b)	11. (b)	12. (b)
13. (b)	14. (c)	15. (b)	16. (b)
17. (b)	18. (b)	19. (b)	20. (b)



Nature of the Indian Constitution

The Constitution of India is the supreme law of the country. It provides the framework for the political system, defines the powers and duties of the government, and ensures the rights and responsibilities of citizens. It was adopted on 26th November 1949 and came into force on 26th January 1950, the day, which the whole country celebrates as Republic Day.

The Constitution acts as a guiding principle for governance, maintaining balance between the rights of the citizens and the authority of the government. It reflects the aspirations of the people of India for justice, liberty, equality, and fraternity.

Meaning of the Constitution :

A Constitution is a set of fundamental principles or established precedents according to which a state is governed. It defines the structure, powers, and functions of different organs of government — the Legislature, Executive, and Judiciary — and lays down the rights and duties of citizens. The Indian Constitution is the longest written Constitution in the world, with a detailed description of the working of the government and the rights of the people.

Salient Features of the Indian Constitution :

- 1. Written and Detailed Constitution:** The Indian Constitution is one of the most comprehensive documents in the world. It contains 470 Articles, 12 Schedules, and numerous Amendments, covering every aspect of governance.

Chapter - 6 :: Nature of the Indian Constitution

2. **Preamble:** The Preamble expresses the philosophy and objectives of the Constitution. It declares India to be a Sovereign, Socialist, Secular, Democratic Republic and aims to secure Justice, Liberty, Equality, and Fraternity for all citizens.
3. **Sovereign:** India is free to make its own laws and decisions. It is independent in both internal and external matters, without control from any foreign authority.
4. **Socialist:** The term indicates the commitment to achieve social and economic equality. It aims to reduce the gap between rich and poor and ensure equal opportunities for all.
5. **Secular:** India has no official religion. Every citizen has the freedom to practice, profess, and propagate any religion, or none at all. The State treats all religions equally.
6. **Democratic:** India follows a democratic form of government, where the people are the ultimate source of power. Citizens elect their representatives through free and fair elections.
7. **Republic:** The head of the State (President) is elected, not hereditary. This ensures equality and public participation in governance.
8. **Federal Structure with Unitary Spirit:** India has a federal system, dividing powers between the Union and the States, but during emergencies, the Constitution allows the Centre to assume greater control — hence it has a unitary character as well.
9. **Parliamentary Form of Government:** The Council of Ministers, headed by the Prime Minister, is responsible to the Lok Sabha. This ensures collective responsibility and accountability of the government.
10. **Fundamental Rights and Duties:** The Constitution guarantees Fundamental Rights such as the right to equality, freedom, and constitutional remedies. It also lays down Fundamental Duties for citizens to promote harmony and respect national ideals.
11. **Directive Principles of State Policy:** These are guidelines for the government to ensure social and economic justice. Although not legally enforceable, they are essential for the nation's progress.
12. **Independent Judiciary:** The Judiciary is independent and protects the Constitution. The Supreme Court is the guardian and final interpreter of the Constitution.

- 13. Secular and Inclusive Values:** The Constitution promotes unity in diversity by ensuring that every citizen, regardless of religion, caste, or gender, enjoys equal status and protection.

The nature of the Indian Constitution can be explained under the following points:

- 1. Comprehensive and Flexible:** The Indian Constitution is one of the lengthiest and most detailed constitutions in the world. It contains provisions not only for the functioning of the central and state governments but also for the rights of citizens, directive principles, emergency powers, and the functioning of local governments. Despite its detailed nature, the Constitution is flexible enough to adapt to changing social, political, and economic conditions through the process of amendments. The Parliament of India has been given the power to amend the Constitution under Article 368, ensuring that it remains relevant over time.
- 2. Democratic and Republican:** India is a democratic republic, meaning that sovereignty lies with the people. All powers of the government are derived from the will of the people, expressed through periodic free and fair elections. Being a republic, India has no hereditary rulers. The President of India, who is the head of the state, is elected for a fixed term. This reflects the republican spirit where leadership is based on merit and choice, not on birth or privilege.
- 3. Federal with Unitary Bias :** The Indian Constitution establishes a federal system of government, where powers are divided between the Union Government and the State Governments. The Seventh Schedule of the Constitution lists the subjects under the Union List, State List, and Concurrent List. However, unlike a completely federal structure, India's system shows a unitary bias — meaning that in certain circumstances, especially during emergencies, more power is concentrated in the hands of the Union Government. This ensures national unity and integrity in times of crisis.
- 4. Secular and Socialist :** India is declared a Secular and Socialist state in the Preamble of the Constitution.
 - Secularism means that the State does not have any official religion. Every citizen has the freedom to profess, practice, and propagate any religion or to follow none. The government treats all religions equally and maintains a respectful distance from religious affairs.

Chapter - 6 :: Nature of the Indian Constitution

- Socialism reflects the commitment to achieve economic and social equality. The Constitution directs the State to work towards reducing inequalities in income and wealth and to provide opportunities for all citizens to lead a dignified life.

5. Dynamic in Character : The Indian Constitution is dynamic and living, not static. It evolves through judicial interpretations, constitutional amendments, and changing socio-political circumstances. The Supreme Court and High Courts play a key role in interpreting the Constitution and ensuring that its principles are applied in contemporary contexts. Through landmark judgments and amendments, the Constitution continues to respond to the aspirations and challenges of modern India.

Importance of the Constitution :

1. It provides stability and order to governance.
2. It safeguards citizens' rights and freedoms.
3. It ensures social, economic, and political justice.
4. It promotes unity and integrity of the nation.
5. It acts as the guardian of democracy in India.

The Indian Constitution is not only a legal document but also a moral and political charter of the nation. It reflects the vision of the framers to build an independent, democratic, and inclusive India. Its flexibility and progressive character have enabled it to adapt to new challenges over time. Understanding the nature of the Constitution helps every citizen appreciate the values of freedom, equality, and justice that form the foundation of our democracy.

Constitutional Obligation :

The Constitution of India not only guarantees rights to its citizens but also expects them to perform certain duties. These duties are known as the Constitutional Obligations of Indians. They remind citizens that while enjoying their rights, they also have responsibilities toward the nation, society, and environment.

A democratic system functions successfully only when citizens respect the law, uphold moral values, and actively participate in nation-building. These obligations are essential for maintaining harmony, peace, and sustainable development in a diverse country like India.

Concept of Constitutional Obligations :

The term “Constitutional Obligation” refers to the responsibilities and duties prescribed by the Constitution that every citizen must perform for the well-being of the country.

In India, these obligations are primarily expressed through the Fundamental Duties, which are included in Part IVA (Article 51A) of the Constitution. They serve as a reminder to every citizen to act responsibly, respect the nation’s values, and contribute to social and environmental welfare.

Origin of Fundamental Duties :

Originally, the Indian Constitution did not contain any list of Fundamental Duties. However, after observing the growing need for civic responsibility, the 42nd Constitutional Amendment Act, 1976 (during the period of the Emergency) introduced Article 51A, which added ten Fundamental Duties.

Later, the 86th Amendment Act, 2002 added one more duty related to education, making the total eleven Fundamental Duties.

List of Fundamental Duties (Article 51A) :

Every citizen of India shall :

1. Abide by the Constitution and respect its ideals, the National Flag, and the National Anthem.
2. Cherish and follow the noble ideals that inspired the national struggle for freedom.
3. Uphold and protect the sovereignty, unity, and integrity of India.
4. Defend the country and render national service when called upon to do so.
5. Promote harmony and the spirit of common brotherhood among all people of India, transcending religious, linguistic, and regional diversities.
6. Value and preserve the rich heritage of our composite culture.
7. Protect and improve the natural environment, including forests, lakes, rivers, and wildlife, and have compassion for living creatures.

8. Develop scientific temper, humanism, and the spirit of inquiry and reform.
9. Safeguard public property and abjure violence.
10. Strive towards excellence in all spheres of individual and collective activity.
11. (Added by 86th Amendment, 2002) – Provide opportunities for education to one's child or ward between the ages of six and fourteen years.

Significance of Constitutional Obligations :

The Fundamental Duties play a vital role in strengthening the moral and civic foundation of the nation. Their importance can be understood as follows:

1. **Promote National Unity and Integrity:** They remind citizens to protect the unity and sovereignty of the country.
2. **Ensure Social Harmony:** Duties such as promoting brotherhood and respecting diversity help in maintaining communal harmony.
3. **Protect Cultural and Environmental Heritage:** Citizens are encouraged to preserve India's cultural diversity and natural resources.
4. **Encourage Discipline and Patriotism:** Respecting the national symbols and defending the country fosters a spirit of patriotism.
5. **Support Democratic Governance:** A democracy can succeed only when citizens perform their duties responsibly alongside exercising their rights.

Environmental Responsibility as a Constitutional Duty :

Environmental protection holds a special place among the Fundamental Duties. **Article 51A(g) of the Constitution states:**

“It shall be the duty of every citizen of India to protect and improve the natural environment including forests, lakes, rivers, and wildlife, and to have compassion for living creatures.”

This article makes every citizen an active participant in environmental conservation. It means:

- Avoiding actions that pollute air, water, or soil.
- Participating in tree plantation and cleanliness drives.
- Respecting wildlife and biodiversity.
- Using natural resources wisely and sustainably.

This duty is linked to Article 48A, a Directive Principle, which directs the State to protect and improve the environment. Together, they form the constitutional foundation for environmental protection in India.

Relationship between Rights and Duties :

The Fundamental Rights and Fundamental Duties are like two sides of the same coin.

- **Rights** give us freedom and opportunities.
- **Duties** remind us of our responsibilities toward others and the nation.

For example:

- We have the Right to Freedom of Speech, but we must use it responsibly without spreading hate or misinformation.
 - We enjoy the Right to Life, but we must not harm the environment that sustains life.
- Thus, rights and duties are interdependent — one cannot exist meaningfully without the other.

Role of Citizens in Upholding Constitutional Obligations :

As responsible citizens, we can fulfill our constitutional obligations by:

1. Respecting national symbols and values.
2. Participating in community development and cleanliness drives.
3. Promoting peace, tolerance, and gender equality.
4. Conserving energy, water, and biodiversity.
5. Helping to educate children and the underprivileged.
6. Supporting lawful and ethical behaviour in society.

By practicing these values, citizens strengthen democracy and ensure a sustainable future for India.

The Constitutional Obligations of Indians are the guiding principles for responsible citizenship. It reminds every individual that democracy is not only about enjoying rights but also about performing duties. Among these duties, environmental protection holds great importance in today's world. By fulfilling our constitutional obligations with sincerity, we contribute to building a strong, peaceful, and environmentally conscious nation.

Key Terms :

Term	Meaning
Constitution	The supreme law that guides the governance of a country.
Preamble	Introduction stating the ideals and objectives of the Constitution.
Sovereignty	Freedom of the nation from external control.
Democracy	Government by the people, for the people, and of the people.
Secularism	Equal respect for all religions
Fundamental Duties	Responsibilities of every citizen as prescribed in the Constitution under Article 51A.
42nd Amendment (1976)	The amendment that introduced Fundamental Duties.
Constitutional Obligation	A duty or responsibility that citizens must follow under the Constitution.
Article 51A(g)	Duty of citizens to protect and improve the environment.
Sovereignty	The supreme authority of a nation to govern itself.

EXERCISES**? Multiple Choice Questions :**

- The Constitution of India was adopted on:
 - 15 August 1947
 - 26 January 1950
 - 26 November 1949
 - 2 October 1950

2. The Constitution of India came into force on:
(a) 15 August 1947 (b) 26 January 1950
(c) 26 November 1949 (d) 1 January 1950
3. The Constitution is known as:
(a) Ordinary law (b) Supreme law of the country
(c) Religious law (d) Customary law
4. The Preamble declares India as a:
(a) Monarchy (b) Dictatorship
(c) Sovereign Socialist Secular Democratic Republic (d) Federal monarchy
5. The Indian Constitution is the:
(a) Shortest constitution (b) Longest written constitution
(c) Oldest constitution (d) Simplest constitution
6. Sovereignty means:
(a) Dependence on other countries (b) Freedom from external control
(c) Religious freedom (d) Equality
7. Secularism means:
(a) Only one religion (b) No religion allowed
(c) Equal respect for all religions (d) Government religion
8. Democracy means:
(a) Rule by king (b) Rule by army
(c) Government by the people (d) Rule by judges
9. Republic means:
(a) Hereditary ruler (b) Elected head of state
(c) Religious head (d) Military head
10. The Indian Constitution has:
(a) 200 Articles (b) 300 Articles
(c) 470 Articles (d) 600 Articles
11. The Constitution divides powers between:
(a) Citizens and courts (b) Union and States
(c) Teachers and students (d) Army and police

12. The Indian system is:
 - (a) Completely unitary
 - (b) Completely federal
 - (c) Federal with unitary bias
 - (d) Monarchy
13. Fundamental Duties are included in:
 - (a) Article 21
 - (b) Article 32
 - (c) Article 51A
 - (d) Article 368
14. Fundamental Duties were added by:
 - (a) 44th Amendment
 - (b) 42nd Amendment
 - (c) 86th Amendment
 - (d) 73rd Amendment
15. Total number of Fundamental Duties now is:
 - (a) 10
 - (b) 11
 - (c) 12
 - (d) 9
16. The Judiciary is:
 - (a) Dependent
 - (b) Independent
 - (c) Controlled by Parliament
 - (d) Controlled by President
17. Directive Principles are:
 - (a) Enforceable laws
 - (b) Guidelines for government
 - (c) Court orders
 - (d) Punishments
18. Article 51A(g) deals with:
 - (a) Education
 - (b) Environment protection
 - (c) Elections
 - (d) Taxation
19. The Constitution can be amended under:
 - (a) Article 21
 - (b) Article 32
 - (c) Article 368
 - (d) Article 370
20. The Constitution promotes:
 - (a) Division
 - (b) Inequality
 - (c) Unity and integrity
 - (d) Monarchy

? Very Short Answer Questions

1. What is meant by Constitutional Obligations?
2. How many Fundamental Duties are there in the Indian Constitution?
3. Which Article deals with the protection of the environment?
4. When were Fundamental Duties added to the Constitution?

? Short Answer Questions

1. Explain the importance of Fundamental Duties in a democratic country.
2. Describe any three Fundamental Duties of citizens.
3. What is the significance of Article 51A(g)?
4. How are rights and duties related to each other?

? Long Answer Questions

1. Discuss the Constitutional Obligations of Indian citizens and their importance in nation-building.
2. Examine the relationship between Fundamental Duties and environmental protection with reference to Article 51A(g).

Activities and Assignments :

1. **Classroom Discussion:** Discuss how students can contribute to environmental protection as part of their Fundamental Duties.
2. **Poster/Chart Activity:** Prepare a colourful chart showing all 11 Fundamental Duties and display it in your classroom.
3. **Field Project:** Participate in a tree plantation or cleanliness drive in your locality. Write a short report on how such activities fulfill constitutional obligations.
4. **Essay Writing:** Write an essay on “My Role as a Responsible Citizen of India.”
5. **Group Presentation:** Prepare a group presentation on “How the Constitution of India inspires citizens to protect the environment.”

Activity / Assignment for Students :

1. Activity: Prepare a chart showing the **features of the Indian Constitution** and paste it in your notebook.

2. Assignment Questions:

- (a) What is a Constitution?
- (b) Explain the meaning of the Preamble.
- (c) Mention any three salient features of the Indian Constitution.
- (d) What do you understand by the term “Secular State”?
- (e) Write a short note on the “Nature of the Indian Constitution.”

For Discussion :

- Why do you think the Indian Constitution is called a “living document”?
- How does the Constitution help maintain unity in diversity in India?

MCQ ANSWERS

1. (c)	2. (b)	3. (b)	4. (c)
5. (b)	6. (b)	7. (c)	8. (c)
9. (b)	10. (c)	11. (b)	12. (c)
13. (c)	14. (b)	15. (b)	16. (b)
17. (b)	18. (b)	19. (c)	20. (c)



Nature and Conservation

Introduction: The Symbiotic Bond

The history of humankind cannot be written without nature. Across centuries, forests, rivers, oceans, mountains have shaped the growth of human civilisation. The existence of humanity is intrinsically interlinked with the environment. The relation between them is cordially balanced by nature. However, the relationship between humanity and the environment has shifted from one of reverence to one of dominance.

The current Epoch, i.e the **Anthropocene**, is used to describe the most recent division of geological time in Earth's history that has severely impacted the planet's climate and ecosystems.

Conservation is becoming a necessity for existence rather than a “niche” hobby.

Modern science asserts how environment has a direct impact on human health. According to the **Gaia Hypothesis**, Earth is a single, self-governing organism. The entire “living” planet responds when one component of the system—such as the climate—is disturbed. We must first comprehend this interconnectedness in order to take meaningful action.

Importance and Impact of Nature Learning :

Learning about nature involves more than just learning biological terminology; it also involves cultivating ecological literacy. Encouraging nature learning and incorporating outside, hands-on experiences into the classroom significantly improves cognitive development, physical health, and emotional well-being.

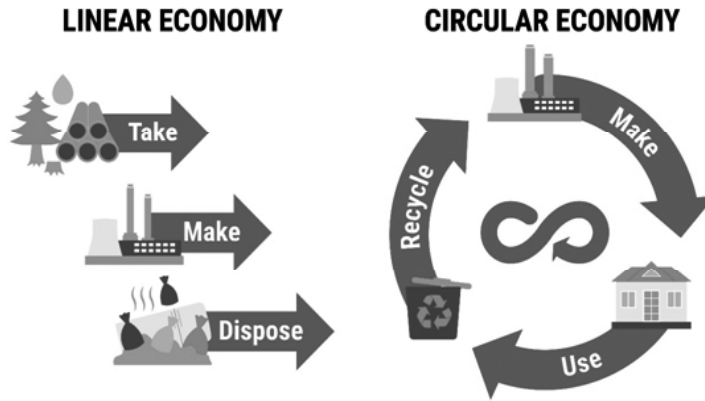
- **Cognitive and Mental Health:** Researchers refer to the state of modern living as “Nature Deficit Disorder.” It has been demonstrated that exposure to green environments increases creativity, lengthens attention spans, and lowers cortisol levels (inducing stress). The Biophilia Hypothesis, which contends that people have an inbuilt propensity to seek out relationships with other living things and the natural world, is the foundation of this.
- **Developing Empathy for the Environment:** Students become active stewards rather than passive observers when they participate in experiential learning activities, such as field trips to woods or wetlands. This promotes an “Environmental Ethic,” in which preserving the environment is viewed as a moral obligation rather than a legal requirement.
- **Environment Policing:** Learning about nature gives young people the confidence to challenge unsustainable industrial practices. Movements such as “Fridays for Future” show that students who comprehend ecology become the strongest champions for changing policies.

Protection of the Environment: Strategies for Resilience :

A multifaceted strategy that addresses the integrity of the air, water, and soil is needed to protect the ecosystem. To combat the effects of climate change, it needs a multi-pronged approach that combines community activity, renewable energy, and nature-based solutions. Reducing carbon footprints, repairing ecosystems, investing in sustainable infrastructure, and implementing circular economy models are important waste reduction tactics.

- **Mitigating the Pollution Crisis:** We must address the “Big Three”:
 1. **Atmospheric Health:** To stop global warming, greenhouse gas concentrations such as CO₂ and CH₄ should be decreased.
 2. **Hydrological Health:** Preventing heavy metals from seeping into groundwater and fighting the “plastic soup” in our oceans.
 3. **Maintaining Soil Integrity:** Cutting down on chemical runoff from intensive farming.
- **The Circular Economy:** We currently use a “Linear” (Take-Make-Waste) economic model. We must transition to a **Circular Economy** in order to safeguard the environment.

By creating goods that are completely reusable, repairable, or recyclable, this strategy seeks to eradicate waste and maintain a continual cycle of resources.



(Source: Shutterstock stock images)

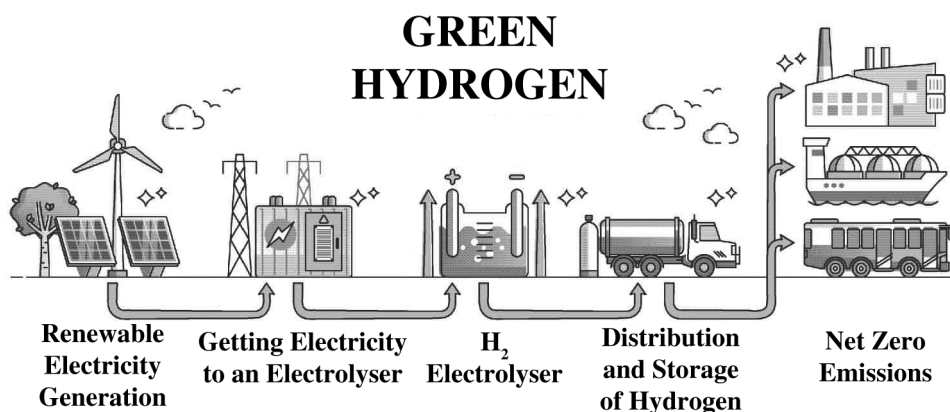
- **Global Policy:** Understanding frameworks like the **Paris Agreement** (aiming to limit global warming to below 2°C) is crucial for realizing how local actions contribute to global targets.

Energy Conservation: Powering a Greener Tomorrow :

Modern civilization depends on the use of Energy, but its current sources are the primary precursors of climate change. So, basic idea is to shift from the use of conventional fuels or resources to renewable resources that foster environment protection and prevent the factors inducing unfavourable climate change

- **The Transition to Renewable :** We are witnessing a global shift from fossil fuels to renewable sources.
 - **Solar and Wind:** These are now the cheapest forms of new power in much of the world.
 - **Green Hydrogen:** This entails splitting water into hydrogen and oxygen using renewable electricity, producing a clean fuel for heavy industries like shipping and steel.
- **Energy Efficiency and Demand-Side Management:** The “cleanest” energy is the energy we never use.

- **Technological Fixes:** Substituting the conventional bulbs to LEDs, using smart grids to prevent transmission loss, and choosing low energy required appliances, which may be costlier but will be beneficial to the nature
- **Behavioural Fixes:** Simple habits like optimizing natural light in buildings and practicing the “off-by-default” rule for electronics.



(Source: Shutterstock stock images)

Wildlife Conservation: Preserving the Web of Life :

Preserving the planet’s “genetic library” is the goal of wildlife conservation. A broken connection in the ecosystem results from the extinction of any species.

- **Biodiversity Hotspots:** These are regions with high levels of species richness that are under threat. India is one of the 17 mega diverse countries of the world with only 2.4% of the total land area of the world, and the known biological diversity of India contributes 8% to the total known global biodiversity. India is home to four of the world’s 36 recognized biodiversity hotspots, characterized by exceptionally high levels of plant endemism and significant habitat loss: the Himalayas, Western Ghats, Indo-Burma region, and Sundaland (Nicobar Islands).

On October 25, 1980, the Forest (Conservation) Act, 1980 act was enacted by the Indian Parliament to ensure the regulations on forest deforestation, thus reserving the rich biodiversity of India. It sought to introduce a balance and logical approach to convert the forest land to a non-forest land, harmonizing conservation with economic growth.

- **Conservation Methods:**

- **In-Situ (On-site):** Protecting species in their natural habitat through National Parks and Biosphere Reserves. This allows evolutionary processes to continue.
- **Ex-Situ (Off-site):** Protecting species outside their natural habitat, such as in seed banks, zoos, or botanical gardens. This acts as a “backup” for critically endangered species.

- **Human-Wildlife Conflict:** The term “human-wildlife conflict” (HWC) describes unfavourable encounters between people and wild animals that cause harm or death to both sides, such as crop raiding, cattle predation, property destruction, and dangers to human safety. These interactions are becoming more frequent worldwide because of city and habitat expansion. The solution lies from shift the mindset from managing conflict to promoting coexistence, and the formation of **Ecological Corridors** are major steps towards it.

In India, Human-Wildlife Conflict is a well recorded event. There are around 80,000 incidents of this nature occurring annually which leads to significant human fatalities, destructions of crop fields and animal deaths. The Indian parliament enacted the **Wildlife (Protection) Act, 1972**, which provides the safeguard and protection of the wildlife (flora and fauna) in the country. The act was last amended in the year 2006 recognizing the importance of wildlife corridors. This act empowers the authorities to manage the dangerous animals and allow a space to operate for reducing Human-Wildlife Conflict in a scientific way.

Conclusion: The Path Forward

The Intergenerational Equity can only be achieved if we do not deplete the Earth’s resources. The rapid depletion is irrational for the generation after us. The massive industrialization, urbanization, and unmarked utilisation of non-renewable resources can lead the humankind to a complete standstill. The combined effects of individual decisions, such as what we eat, how we travel, and what we purchase, are part of crucial decisions that we need to take at personal level.

Thus, our contemporary understanding of relationship between humans and nature confirms that conservation is an essential part of human activity. Conservation, in its core, is an act of preservation. Without approaches that safeguard the conservation, we cannot visualise

a dynamic civilisation full of opportunities and resources for prosperity. Viewed in this context, conservation is not merely an act of kindness toward nature. We require a vibrant and sustainable nature for our own survival. Nature gives us the ultimate shelter and we are not, as a rational and sentimental being to destroy the Mother Nature and rip-off this ultimate shelter for our self interest and incessant greed to have more. As Mahatma Gandhi pointed out long ago- there is enough for need, not for greed.

EXERCISES

? Multiple Choice Questions :

1. The term Anthropocene refers to:
(a) Ancient period
(b) Modern geological epoch influenced by humans
(c) Ice age
(d) Stone age
2. The Gaia Hypothesis states that:
(a) Earth is lifeless
(b) Earth is a self-regulating organism
(c) Humans control Earth
(d) Nature is separate from humans
3. Nature learning helps in:
(a) Reducing intelligence
(b) Improving cognitive and emotional health
(c) Increasing stress
(d) Avoiding education
4. "Nature Deficit Disorder" refers to:
(a) Lack of food
(b) Lack of exposure to nature
(c) Lack of education
(d) Lack of sleep
5. Biophilia Hypothesis suggests:
(a) Humans dislike nature
(b) Humans have a natural connection with nature
(c) Nature harms humans
(d) Humans avoid living things
6. Environmental ethic means:
(a) Ignoring environment
(b) Moral responsibility to protect environment
(c) Only legal duty
(d) Only scientific duty

7. Circular economy aims to:
 - (a) Increase waste
 - (b) Reduce reuse
 - (c) Eliminate waste and reuse resources
 - (d) Increase production
8. Which is NOT part of the “Big Three” pollution areas?
 - (a) Air
 - (b) Water
 - (c) Soil
 - (d) Space
9. Greenhouse gases include:
 - (a) Oxygen
 - (b) Nitrogen
 - (c) CO₂ and CH₄
 - (d) Hydrogen
10. Paris Agreement aims to:
 - (a) Increase pollution
 - (b) Limit global warming below 2°C
 - (c) Stop industries
 - (d) Promote fossil fuels
11. Renewable energy sources include:
 - (a) Coal
 - (b) Petrol
 - (c) Solar and wind
 - (d) Diesel
12. Green hydrogen is produced by:
 - (a) Burning coal
 - (b) Splitting water using renewable energy
 - (c) Using petrol
 - (d) Using gas
13. Energy efficiency means:
 - (a) Using more energy
 - (b) Saving energy
 - (c) Wasting energy
 - (d) Ignoring energy use
14. India is known as a:
 - (a) Small biodiversity country
 - (b) Mega-diverse country
 - (c) Desert country
 - (d) Polar country
15. Which is NOT a biodiversity hotspot in India?
 - (a) Himalayas
 - (b) Western Ghats
 - (c) Sundaland
 - (d) Sahara Desert
16. In-situ conservation means:
 - (a) Outside natural habitat
 - (b) Inside natural habitat
 - (c) Only in zoos
 - (d) Only in labs

17. Ex-situ conservation includes:
- | | |
|-------------------------|--------------------|
| (a) Forests | (b) National parks |
| (c) Zoos and seed banks | (d) Rivers |
18. Human-wildlife conflict occurs due to:
- | | |
|---------------------|--|
| (a) Natural harmony | (b) Habitat expansion and urbanization |
| (c) Forest growth | (d) Clean environment |
19. Wildlife Protection Act was enacted in:
- | | |
|----------|----------|
| (a) 1950 | (b) 1960 |
| (c) 1972 | (d) 1980 |
20. Conservation is important for:
- | | |
|--------------------------|---------------------------------------|
| (a) Destroying nature | (b) Human survival and sustainability |
| (c) Increasing pollution | (d) Reducing biodiversity |

**Short Type Questions :**

1. What is meant by the Anthropocene epoch?
2. Explain the Gaia Hypothesis in brief.
3. What is a circular economy and why is it important?
4. Differentiate between in-situ and ex-situ conservation.
5. What is human-wildlife conflict and why does it occur?

**Long Type Questions :**

1. Explain the relationship between humans and nature and discuss the importance of conservation in the modern world.
2. Discuss the importance of nature learning and its impact on cognitive, emotional, and environmental awareness.
3. Explain the strategies for environmental protection with reference to pollution control and circular economy.
4. Describe the concept of energy conservation and discuss the role of renewable energy sources in sustainable development.
5. Explain the importance of wildlife conservation and discuss the methods of in-situ and ex-situ conservation along with the issue of human-wildlife conflict.

MCQ ANSWERS

1. (b)	2. (b)	3. (b)	4. (b)
5. (b)	6. (b)	7. (c)	8. (d)
9. (c)	10. (b)	11. (c)	12. (b)
13. (b)	14. (b)	15. (d)	16. (b)
17. (c)	18. (b)	19. (c)	20. (b)



Commerce for Entrepreneurship Development

Importance of Commerce Education for Entrepreneurship Development :

The fact that “Entrepreneurs are made, not born” advocates the significance of the education system in developing and nurturing entrepreneurs. In other words, entrepreneurs can be created by imparting of knowledge and skills through the course-curricula. A holistic education system involving classroom teaching, project-based activities, emotional and mental well-being programmes, critical and creative thinking initiatives etc. create individuals who are capable of making meaningful contributing to the society.

Entrepreneurship :

Entrepreneurs are individuals who convert opportunities into feasible products. They undertake risks for starting the venture by making initial investments. Innovation is a key aspect that defines the activities of entrepreneurs since they engage in doing things differently. Therefore, an entrepreneur innovates (either a new product or newer techniques to deliver a product), identifies opportunities, converts those opportunities into a viable plan, gathers the necessary resources to create and add value, bears risk and manages business in expectation

of rewards (financial or non-financial) from work. As such, with a distinct vision, an entrepreneur acts a catalyst in the economy to bring about a desired change.

The process of entrepreneurship results in socio-economic development because of the following points:

- Entrepreneurs generate jobs and provide employment to several others
- Innovative products result in better standard of living in the society.
- Many entrepreneurs design their products to address societal problems and thus, making life simpler for the people.
- Entrepreneurial ventures boost production and export related activities and thus, contribute to the overall GDP of the country.
- Entrepreneurship promotes balanced regional development by distribution of wealth through salaries, investments and taxes.
- By carrying out entrepreneurial activities, individuals become self-reliant and are not depend on the government for sustaining their livelihood.

Commerce Education and Entrepreneurship Development :

Commerce education equips students with the knowledge and skills required to deal in economic activities related to business, trade and industry. Its fundamental purpose is to produce individuals who are capable of understanding the course of operation, management and delivery of any commercial or financial activity. The domain of commerce is basically a blend of lessons on accounting, banking, human resource management, marketing, strategic business planning, business laws etc. Currently, 'Entrepreneurship' is offered as a core paper in various Universities and affiliated educational institutes in their curricula of the Commerce and Management programmes. The syllabi of Entrepreneurship are designed to mostly cover various topics on concepts, significance and theories, idea generation and opportunity recognition, writing a business plan, modes of start-up finance, funding agencies and Government intervention measures. As such, Commerce education provides students with exposure to the practices, policies and actions to be initiated as entrepreneurs.

The role of commerce education in entrepreneurship development can be summarized as below:

- Commerce education equips students with financial skills to manage books of accounts which is very crucial to keep records of income, expenditures, sales, profits etc. resulting from the day-to-day business transactions;

- The domain of commerce educates students on the concepts and theories of designing a product as well as strategies to be adopted while pricing, promoting and distributing the same;
- Students are taught about managing the human resources (employees) engaged in the business by remunerating, appreciating, rewarding, training etc.;
- The techniques of selling, negotiating and networking are taught to Commerce students which are crucial for growing and sustaining a business;
- Courses on business and commercial laws acquaint students with the legal formalities as well as the clearances and compliances required for starting and carrying out a business entity;
- The principles of business management like planning, designing organizational structure, recruiting the right people, controlling the operations, leading and managing a team are included in the course structure;
- Courses on international business provide knowledge on the dynamics of international market, procedure of export-import trade as well as on international relations with trading nations.
- The entrepreneurship courses specifically have discussions on the ways to generate business ideas by critically identifying opportunities in the market. Such courses also provide students with knowledge on the strategies of acquiring funds and also aware them about the government schemes and incentives designed for start-ups.

As such, the integrated knowledge structure of Commerce education system plays a crucial role in preparing students to be self-reliant by starting and sustaining their business units. It can be concluded that Commerce education produces individuals who are capable of being enterprising and resourceful, and hence foster social and economic progress.

Technological Intervention in Commerce Education :

The umbrella of Commerce comprises of multi-dimensional activities ranging from idea generation, production, manufacturing, promotion, distribution, selling to after-sales initiatives. With technology and commerce going hand-in-hand in the present times, each of these stages have necessarily undergone technological upgradations. In other words, it has become inevitable for businesses to use modern machineries, advanced software, internet platforms

for better, easier and efficient outcomes. In other words, technological intervention in commerce involves using digital systems, robots, social-media, data and information management tools etc. to make commercial work more accurate and convenient.

For example, rather than using registers for manually recording of day-to-day financial transactions, businesses today have upgraded to using accounting software like Tally which makes the task faster and easier. Customers today prefer to shop from e-commerce websites like Myntra, Amazon, Flipkart etc. instead of going to the stores physically. Additionally, there has also been a shift from traditional cash payments to digital payment while making purchases. Using online payment apps like Paytm, PhonePe, GPay etc. are opted by customers due to their ease of use. As such, technology has revolutionised the mode of trade and commerce across the globe.

Technological Intervention in Commerce Education :

In order to keep up with the rapid pace of technological innovations, the structure of commerce education has swiftly adapted to the changing environment. Several programmes and courses under the domain of Commerce Education have successfully incorporated the newer dimension of technology and its applicability in business and trade. The modern modes of conducting business and financial transactions are today included in the syllabi of the Commerce based programmes. In fact, teaching students about preparing accounts statements using modern day accounting software would make them more competent and market ready. In fact, the recruiters today look for candidates with knowledge and skills of technological applications in business.

As such, commerce education provides an edge to the students by teaching about modern technological applications in the following areas:

- (a) E-Commerce (Electronic Commerce):** E-commerce refers to buying and selling goods or services through the internet. It saves time, provides a wide range of options, and offers doorstep delivery.
- (b) E-Banking (Electronic Banking):** With the help of internet banking facilities, banking transactions such as transferring money, making payments, or checking account statements, can be done by visiting online or through mobile apps.

- (c) **Digital Payments:** Availability of digital wallets has made payments cashless. Customers are able to pay using mobile apps like GPay or simply by swiping their credit or debit cards.
- (d) **Accounting and Financial Management:** Computerized accounting software such as Tally, SAP, and MS Excel assists in recording, analyzing, and managing financial data accurately.
- (e) **Digital Marketing:** Marketers/ Entrepreneurs make use of social networking platforms like Facebook, Instagram, X (formerly Twitter), etc. and video sharing sites like YouTube, TikTok etc to promote their products at lower costs.
- (f) **Customer Relationship Management (CRM):** Companies use CRM software to record customer data, and manage their complaints and feedbacks, thus ensuring prompt action and improved customer relationships.
- (g) **Data Analytics and Artificial Intelligence (AI):** AI and data analytics help companies understand market trends, predict consumer behaviour, and make better business decisions. For example, online platforms recommend products to users based on their past purchases using AI algorithms.
- (h) **Virtual and Remote Work:** Workplaces have today adapted to virtual mode of operations using apps like Zoom, Microsoft Teams, and Google Meet. This allows employees to communicate and collaborate from anywhere in the world.

As technology re-shapes the modern business environment, commerce education is expected to prepare students with knowledge and skills relevant to the market. Infact, technology in education like smart classrooms, digital boards, online discussions, educational videos etc. have further aided commerce education in keeping up with the advancements in the market.

Financial Literacy :

Money is a significant part of our day-to-day lives since we need to deal in monetary terms in several activities like purchasing items of daily use, travelling, entertainment, education etc. As such, it is crucial that we have the basic knowledge to managing money. In other words, one must know how to earn, spend, save, and invest money wisely. This ability is called financial literacy.

Today, financial literacy has become an important life-skill for a lifelong stability and security. Being financially literate helps individuals to make sound financial decisions, safeguard themselves from financial frauds and avoid situations of debt traps. Smart investment plans act like a cushion during times of financial crisis in the economy and thus, helps individuals to be financially independent. Hence, financial literacy is not only about handling money but also about developing financial discipline and responsibility.

A financially literate person is capable of :

- Managing income and expenses effectively;
- Saving regularly and making wise investment choices;
- Borrowing responsibly and avoiding debt traps;
- Planning for long-term financial goals like education, housing, or retirement.

Example : Sneha, a student, starts saving ₹ 500 each month from the pocket money she receives from her parents. She deposits the amount in a recurring account. After few years, she will have enough money to buy a laptop without taking a loan. Her financial awareness helped her achieve this goal easily.

Importance of Financial Literacy :

The following points highlight the importance of financial literacy:

- **Helps in Budgeting and Planning:** It allows individuals to plan their income and expenses carefully, ensuring money is spent wisely.
- **Encourages Saving Habits:** Understanding the value of savings motivates people to set aside money for emergencies and future needs.
- **Guides Smart Investment Decisions:** Financial literacy helps individuals compare investment options like mutual funds, insurance, or shares to earn better returns.
- **Prevents Debt Traps:** Awareness about loans and interest rates enables people to borrow within limits and repay on time.
- **Protects from Financial Frauds:** Financially literate individuals are cautious about online scams and fake calls.

- **Ensures Future Security:** Financial literacy helps in planning for long-term goals such as higher education, marriage, or retirement.
- **Contributes to National Growth:** When citizens make smart financial choices, overall savings and investments in the economy increase, strengthening national development.

Key Components of Financial Literacy :

- **Budgeting:** Planning about expenditures and keeping a track on spendings
- **Saving:** Setting aside a part of income for future use or emergencies
- **Investing:** Putting money in avenues like mutual funds or stocks to earn returns
- **Debt Management:** Borrowing responsibly by being aware about loans and credit cards and paying back the money timely
- **Insurance:** Managing financial risk and ensuring a secured future
- **Taxes:** Understanding types of taxes and the existing rates and paying taxes timely

Relevance of financial literacy in the 21st century :

Being financial literate has now become more important than earlier times since the current generations are exposed to multiple financial products and varied investment avenues. Till the last few decades, people only transacted in cash and mostly relied on banks for savings and borrowings. As such, the risks of losing money and the means of getting exposed to financial scams were minimal. In the recent times, as the convenience and ease of making financial transaction increases, so has the cases of monetary frauds and risks. Availability of credit/debit cards, UPI payment options, internet banking facilities and newer investment avenues like crypto currencies have also led to being subjected to cyber crimes and online fraudulent acts. In such times, being financially unsound may result to bankruptcy and a major economic and personal setback. In today's digital and fast-changing world, understanding money is not optional but an imperative skill necessary for survival, stability and overall well-being.

EXERCISES**Importance of Commerce Education for Entrepreneurship Development****? Multiple Choice Questions :**

1. The statement “Entrepreneurs are made, not born” implies:
 - (a) Entrepreneurs are naturally talented
 - (b) Entrepreneurs can be developed through education
 - (c) Entrepreneurs are born with skills
 - (d) Entrepreneurs do not need training
2. An entrepreneur is a person who:
 - (a) Avoids risks
 - (b) Converts opportunities into products
 - (c) Only studies business
 - (d) Works for others
3. Innovation in entrepreneurship means:
 - (a) Copying ideas
 - (b) Doing things differently
 - (c) Avoiding risks
 - (d) Following tradition
4. Entrepreneurs contribute to the economy by:
 - (a) Increasing unemployment
 - (b) Generating jobs
 - (c) Reducing production
 - (d) Avoiding trade
5. Entrepreneurship helps in:
 - (a) Decreasing GDP
 - (b) Socio-economic development
 - (c) Reducing innovation
 - (d) Increasing dependency
6. Commerce education mainly deals with:
 - (a) Science experiments
 - (b) Business, trade, and industry
 - (c) Only literature
 - (d) Only history
7. Which of the following is a part of commerce education?
 - (a) Physics
 - (b) Accounting
 - (c) Biology
 - (d) Geography

8. Commerce education helps students to:
 - (a) Ignore financial records
 - (b) Manage accounts and finances
 - (c) Avoid business
 - (d) Reduce skills
9. Entrepreneurship promotes:
 - (a) Dependency on government
 - (b) Self-reliance
 - (c) Unemployment
 - (d) Poverty
10. Courses on business laws help students to:
 - (a) Break rules
 - (b) Understand legal requirements of business
 - (c) Avoid business
 - (d) Ignore regulations



Short Type Questions :

1. Who is an entrepreneur?
2. Discuss the characteristics of an entrepreneur.
3. Can entrepreneurs be created by the education system?
4. How does entrepreneurship contribute towards the society?
5. How is Commerce education a multi-faceted approach?
6. What are the basic contents of Entrepreneurship programmes in any educational institute?
7. Write a detailed note on how commerce education contributes towards entrepreneurship development.

MCQ ANSWERS

1. (b)	2. (b)	3. (b)	4. (b)	5. (b)
6. (b)	7. (b)	8. (b)	9. (b)	10. (b)

Technological Intervention in Commerce Education



Multiple Choice Questions :

1. Technological intervention in commerce refers to:
 - (a) Using traditional methods
 - (b) Using digital tools and systems in business
 - (c) Avoiding technology
 - (d) Manual work only

2. Which software is commonly used for computerized accounting?
 - (a) Photoshop
 - (b) Tally
 - (c) VLC
 - (d) Paint
3. E-commerce means:
 - (a) Buying goods from shops
 - (b) Buying and selling goods through the internet
 - (c) Only exporting goods
 - (d) Only importing goods
4. Which of the following is an example of an e-commerce platform?
 - (a) SBI
 - (b) Amazon
 - (c) School
 - (d) Hospital
5. Digital payments include:
 - (a) Cash transactions
 - (b) Cheque payments
 - (c) Mobile payment apps like GPay
 - (d) Barter system
6. E-banking allows users to:
 - (a) Visit bank physically
 - (b) Perform banking activities online
 - (c) Avoid banking
 - (d) Use only cash
7. Digital marketing uses:
 - (a) Newspapers only
 - (b) Social media platforms
 - (c) Radio only
 - (d) Posters only
8. CRM stands for:
 - (a) Customer Record Management
 - (b) Customer Relationship Management
 - (c) Company Resource Management
 - (d) Customer Retail Method
9. Artificial Intelligence helps in:
 - (a) Ignoring data
 - (b) Predicting consumer behaviour
 - (c) Reducing business efficiency
 - (d) Avoiding decisions
10. Virtual work platforms include:
 - (a) Zoom and Google Meet
 - (b) Television
 - (c) Newspaper
 - (d) Library

? Short Type Questions :

1. What is meant by technological intervention in commerce?
2. Discuss about the transitions in day-to-day operations of business activities due to technological intervention.
3. What is the role of commerce education in the era of technological revolution?
4. How has digital marketing made selling and buying process easier?
5. How has internet banking services eased banking related activities?

MCQ ANSWERS

1. (b)	2. (b)	3. (b)	4. (b)	5. (c)
6. (b)	7. (b)	8. (b)	9. (b)	10. (a)

Financial Literacy**? Multiple Choice Questions :**

1. Financial literacy means:

(a) Earning money only	(b) Managing money wisely
(c) Spending money freely	(d) Borrowing money
2. Financial literacy helps in:

(a) Increasing debt	(b) Making sound financial decisions
(c) Ignoring savings	(d) Avoiding planning
3. A financially literate person can:

(a) Waste money	(b) Manage income and expenses
(c) Avoid saving	(d) Ignore investments
4. Saving money regularly helps in:

(a) Increasing expenses	(b) Future financial security
(c) Reducing income	(d) Avoiding investments
5. Investment means:

(a) Spending money	(b) Saving only
(c) Putting money to earn returns	(d) Donating money

6. Debt management refers to:
 - (a) Avoiding loans completely
 - (b) Borrowing irresponsibly
 - (c) Borrowing and repaying wisely
 - (d) Ignoring repayment
7. Which is NOT a component of financial literacy?
 - (a) Budgeting
 - (b) Saving
 - (c) Gambling
 - (d) Investing
8. Financial literacy helps to prevent:
 - (a) Savings
 - (b) Investment
 - (c) Debt traps
 - (d) Budgeting
9. Digital financial tools include:
 - (a) Only cash
 - (b) UPI and debit cards
 - (c) Barter system
 - (d) Only coins
10. Financial literacy is important in the 21st century because:
 - (a) No financial risks exist
 - (b) There are many financial products and fraud risks
 - (c) Money is not needed
 - (d) Only banks exist

? Short Type Questions :

1. Define financial literacy.
2. List the key components of financial literacy.
3. How does financial literacy help in avoiding debt traps?
4. Why is financial literacy important for students?
5. Discuss the relevance of financial literacy in the digital age.

MCQ ANSWERS

1. (b)	2. (b)	3. (b)	4. (b)	5. (c)
6. (c)	7. (c)	8. (c)	9. (b)	10. (b)



Workforce Education Skills

Introduction :

In the modern world, education is not only about knowledge; it must also prepare students to work effectively in real-life situations. Workforce education refers to the set of knowledge, abilities, attitudes, and practical skills that prepare students for employment and professional life. It goes beyond classroom learning and focuses on real-world competence.

As India moves toward a fast-growing digital, service-based, and knowledge-driven economy, skill development has become essential.

For students in Assam and North East India, acquiring appropriate skills can open opportunities in :

- Government and corporate sectors
- Tourism and hospitality
- Healthcare services
- Information Technology and Artificial Intelligence
- Agriculture and agro-based industries
- Handloom, handicrafts, and entrepreneurship
- Construction and manufacturing
- Service sectors

These skills make students confident, responsible, and prepared for future careers. Thus, workforce skills empower individuals to build secure careers and contribute to regional development.

Meaning and Need for Workforce Education :

Workforce education helps students :

- Prepare for the demands of the job market.
- Gain confidence to communicate and collaborate.
- Adapt to rapidly changing technology.
- Develop professionalism and responsibility.

In today's world, having only academic knowledge is not enough. Employers seek individuals who can:

- Work practically
- Think creatively
- Solve problems
- Work in teams
- Communicate clearly
- Learn continuously

Soft Skills :

Soft skills refer to personal and interpersonal abilities such as communication, leadership, teamwork, and time management. These skills help individuals interact effectively with others in workplaces and social environments. Strong soft skills improve cooperation, problem-solving, and decision-making within organizations. They are essential for career growth, leadership roles, and maintaining healthy professional relationships.

Key Soft Skills :

Skill	Meaning	Example in Daily Life
Communication	Expressing ideas clearly	Explaining your point in group discussions

Teamwork	Working cooperatively	Completing a school project with classmates
Time Management	Balancing tasks efficiently	Preparing for exams with a study schedule
Leadership	Guiding and motivating others	Leading a class activity or event
Adaptability	Adjusting to new situations	Learning to use a new application or tool

Digital Skills :

Digital skills are necessary because many workplaces now use computers and online tools. Digital skills involve the ability to use computers, mobile devices, and digital platforms effectively. Basic digital literacy includes typing, using office software, online communication, and safe use of digital payments. Advanced digital skills such as data analysis, coding, web-page and website building, and use of digital applications and tools increase employability across many sectors. In today's technology-driven economy, digital skills are necessary for both education and employment.

Basic Digital Skills :

- Using smartphones and computers properly
- Typing and operating computers
- Using office applications: Creating documents, spreadsheets, and presentations: (Word, Excel, PowerPoint etc.)
- Email and professional online communication
- Using digital payment methods securely: Understanding digital payments (UPI, wallets, net banking)
- Safe internet usage and cyber awareness

Advanced Digital Skills (these are optional for individuals, but valuable):

- Data analysis using spreadsheets
- Basic coding (e.g., Python)

- Web-page and website building
- Understanding AI applications
- Digital marketing and e-commerce platforms
- Online content creation
- Graphic design and video editing

Industry-Specific Skills :

Industry-specific skills are specialized abilities required for particular sectors or professions. Different industries demand different skill sets based on their nature of work. For example, the hospitality sector requires communication skills, customer service, and cultural awareness; while agriculture requires knowledge of crop cycles, soil management, and technology-based monitoring; manufacturing requires skill to handle machines; and service sector requires skill to maintain and repair an equipment or machine. These skills enable workers to perform efficiently and meet industry standards.

Different industries require different practical skills and technical competencies. For example–

Industry	Skills Required
Healthcare	Patient care, first aid, equipment handling
Tourism & Hospitality	Public communication, cultural awareness, event management
IT & Software	Installations, Repairing, Programming, networking, cybersecurity
Handloom & Handicrafts	Design skills, weaving, product finishing
Agriculture & Food Processing	Farm technology, packaging, quality control
Manufacturing	Handling machines, managing processes
Service sector	Maintenance and repairing of equipment or machine
Construction	Plumbing, Interior design, electrical installations

Chapter - 9 :: Workforce Education Skills

Skill development Universities and Institutes, ITIs, polytechnics, and government programs support training in these sectors.



- The North East Skill Centre (Guwahati) offers training in hospitality, beauty therapy, and retail services.
- PM Kaushal Vikas Yojana (PMKVY) and Skill India Mission support youth skill development across Assam.
- Assam has got its first Skill University, established at Mangaldoi.

Building a Personal Skill Development Plan :

Students can improve their skills by:

- Participating in internships and workshops
- Joining NSS, NCC, Scouts & Guides, or cultural clubs
- Learning new tools and languages online
- Taking part in group discussions, debates, and seminars
- Practicing time and stress management

Simple 4-Step Skill Plan:

1. Identify your interest
2. Check required skills
3. Learn from available resources
4. Practice regularly

Workforce education prepares students for careers and life. Soft skills, digital literacy, industry-specific abilities, and financial awareness help individuals become confident, productive, and responsible members of society. With proper skill development, students of Assam and the North East can contribute to economic growth and build successful futures.

EXERCISES**? Multiple Choice Questions :**

1. Workforce education mainly focuses on:
 - (a) Only theoretical knowledge
 - (b) Practical skills and real-life competence
 - (c) Only exams
 - (d) Only memorization
2. Workforce education helps students to:
 - (a) Avoid jobs
 - (b) Prepare for employment
 - (c) Ignore skills
 - (d) Avoid communication
3. Soft skills include:
 - (a) Machine operation
 - (b) Communication and teamwork
 - (c) Farming
 - (d) Coding only
4. Communication skill means:
 - (a) Listening only
 - (b) Expressing ideas clearly
 - (c) Writing only
 - (d) Reading only
5. Teamwork refers to:
 - (a) Working alone
 - (b) Working with machines
 - (c) Working cooperatively with others
 - (d) Ignoring others
6. Time management helps in:
 - (a) Wasting time
 - (b) Balancing tasks efficiently
 - (c) Ignoring tasks
 - (d) Increasing stress
7. Digital skills involve:
 - (a) Farming
 - (b) Using computers and online tools
 - (c) Only writing
 - (d) Only speaking
8. Which is a basic digital skill?
 - (a) Coding
 - (b) Using smartphones
 - (c) Artificial Intelligence
 - (d) Robotics

9. Advanced digital skills include:
- (a) Typing
 - (b) Using email
 - (c) Data analysis and coding
 - (d) Reading books
10. Industry-specific skills are:
- (a) Same for all industries
 - (b) Skills required for specific sectors
 - (c) Only academic skills
 - (d) Only soft skills
11. Hospitality sector requires:
- (a) Machine handling
 - (b) Communication and customer service
 - (c) Coding
 - (d) Farming
12. Agriculture sector needs:
- (a) Programming
 - (b) Crop and soil knowledge
 - (c) Teaching
 - (d) Accounting
13. IT sector requires:
- (a) Cooking
 - (b) Programming and networking
 - (c) Farming
 - (d) Singing
14. PMKVY stands for:
- (a) Prime Minister Knowledge Yojana
 - (b) Pradhan Mantri Kaushal Vikas Yojana
 - (c) Public Management Skill Yojana
 - (d) Private Market Skill Yojana
15. Skill development plan starts with:
- (a) Spending money
 - (b) Identifying interests
 - (c) Ignoring skills
 - (d) Avoiding learning
16. Which activity helps in skill development?
- (a) Avoiding participation
 - (b) Joining workshops and internships
 - (c) Ignoring learning
 - (d) Avoiding teamwork
17. Workforce education helps in:
- (a) Reducing confidence
 - (b) Building career and responsibility
 - (c) Increasing unemployment
 - (d) Avoiding skills
18. Soft skills mainly relate to:
- (a) Machines
 - (b) People
 - (c) Physics
 - (d) Accounts

19. Basic Digital literacy includes abilities :
 (a) Operating the computer (b) Online Communication
 (c) Using online payment methods securely (d) All of the above
20. Digital skills include :
 (a) Weaving only (b) Operating computers and online tools
 (c) Singing and dancing (d) All of the above

? Short Type Questions :

1. Define workforce education.
2. What are soft skills? Give two examples.
3. Explain the importance of digital literacy
4. What are the different opportunities that the students can avail during their school/ college days through which they can improve their skills?

? Long Type Questions :

1. Discuss the importance of digital skills for students in modern workplaces.
2. Describe the role of industry-specific skills in job readiness.

Activity :

1. Group Discussion: Discuss in groups which workforce skills are most important for sectors like healthcare, tourism, agriculture, or IT and present your views in class.
2. Digital Skills Task: Create a simple resume or presentation using basic computer applications to practice digital skills.
3. Local Industry Study: Identify a local industry in Assam and list the skills required for employment in that sector.
4. Personal Skill Plan: Prepare a brief personal skill development plan by identifying your career interest and required skills.

MCQ ANSWERS

1. (b)	2. (b)	3. (b)	4. (b)	5. (c)
6. (b)	7. (b)	8. (b)	9. (c)	10. (b)
11. (b)	12. (b)	13. (b)	14. (b)	15. (b)
16. (b)	17. (b)	18. (b)	19. (d)	20. (b)

Human Rights

Introduction :

Human rights are a universal baseline for dignity, equality, and respect which applies to all people of the society irrespective of caste, creed and religion. They serve as a moral foundation for global interaction and a practical legal framework for good governance and personal as well as professional development. It upholds human dignity, ensure equality and non-discrimination, protect vulnerable groups, guaranteed basic needs, promoted freedom and autonomy, hold government accountability, fostering peace and rule of law and encourage development and progress.

Learning Objectives : The study of the Human Right will help the student–

- to develop knowledge, skills and attitudes to promote a culture of human rights and responsible citizenship.
- to trace the historical evolution and institutionalization of human rights,
 - to identify and differentiate between various categories of rights, including civil and political rights, economic, social, and cultural rights, and individual versus collective rights.
 - to describe the role of key national and international institutions in promoting and protecting human rights, such as the United Nations, the UN Human Rights

Council, the National Human Rights Commission (NHRC) of India, and the relevant national legal frameworks such as the Indian Constitution.

- To recognize and explain the causes of human rights violations in contemporary society, including issues of poverty, discrimination, violence, gender inequality, and environmental concerns.
- to apply human rights principles to real-world situations and case studies, identifying potential violations and appropriate responses.
- to value human dignity and develop self-respect and respect for others, fostering attitudes of tolerance, empathy, and solidarity.
 - to promote understanding and appreciation of diversity across different national, ethnic, religious, and linguistic communities.
 - to develop a sense of personal and social responsibility for promoting and protecting the rights of all individuals.

Scope of the subject covered : The topic Human Right is included to cover a broad range of topics, including foundational concepts, historical evolution, international frameworks, and national implementation (e.g. in the Indian Constitution), as well as contemporary challenges and foundational concepts, historical concepts and evolution, international frameworks, and national implementation (e.g. in the Indian Constitution), as well as contemporary challenges and the role of various institutions. With a multi- disciplinary approach, drawing from Political Science, law, sociology etc., the study of Human rights prepares the students to be an active and engaged citizen who can participate effectively.

Let's ponder on a few Internationally and Nationally accepted Rights.

The Universal Declaration of Human Rights and its significance :

The Second World War (1939-1945), which lasted for over six years, was the deadliest conflict in human history. It left about 60 million people dead across the globe. Of them, about 20 million were soldiers, and about 40 million were civilians. Several million people were also displaced or left homeless, while a few more millions died of famine and diseases that occurred after the War was over. Nations were in ruins and the world wanted peace.

It was in this backdrop that on October 25, 1945, the United Nations was formed, with the objective of preventing such sufferings in the future. Working on this issue, the United Nations General Assembly on December 10, 1948 adopted its first major resolution which is known as the Universal Declaration of Human Rights. Drafted by representatives from different legal and cultural backgrounds from all over the world, it is a milestone document in the history of mankind, which defined the human rights.

The preamble to the Declaration clearly states that recognition of the inherent dignity and of the equal and inalienable rights of all members of the human family is the foundation of freedom, justice and peace in the world. Article 01 of the Declaration says that “all human beings are born free and equal in dignity and rights”. Article 02 on the other hand says, “Everyone is entitled to all the rights and freedoms set forth in this Declaration, without distinction of any kind, such as race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status.” Everyone is entitled to these rights, without discrimination.

The significance of the Universal Declaration of Human Rights is that it set the first universal standard for fundamental human rights, and thus became the foundation of international human rights law. The Declaration asserts that all individuals are born free and equal in dignity and rights, and that these rights are inherent, inalienable, and apply to everyone regardless of their status. It is from the adoption of this Declaration onward that the term ‘rights’ has become important across the globe, with countries adopting their own laws to protect the rights of the common person.

Moreover, the UN General Assembly in 1948 not only proclaimed the Universal Declaration of Human Rights as a common standard of achievement for all peoples and all nations, but also made it applicable to every individual and every organ of society. It also said that while every Member State or Government would keep this Declaration constantly in mind, they shall take every measure to promote respect for these rights and freedoms.

The Universal Declaration of Human Rights has 30 Articles. Some of them are as follows:

- Everyone has the right to life, liberty and security of person.
- No one shall be held in slavery or servitude; slavery and the slave trade shall be prohibited in all their forms.

- No one shall be subjected to torture or to cruel, inhuman or degrading treatment or punishment.
- All are equal before the law and are entitled without any discrimination to equal protection of the law.
- Everyone charged with a penal offence has the right to be presumed innocent until proved guilty.
- No one shall be subjected to arbitrary interference with his /her privacy, family, home or correspondence, or to attacks upon his /her honour and reputation.
- Everyone has the right to freedom of thought, conscience and religion; this right includes freedom to change his or her religion or belief, and freedom.
- Everyone has the right to freedom of opinion and expression.
- Everyone has the right to take part in the government of his /her country, directly or through freely chosen representatives.
- Everyone has the right to equal access to public service in his/her country.
- Everyone has the right to a standard of living adequate for the health and well-being of the individual and of his/her family.
- Everyone has the right to education; education shall be free at least in the elementary and fundamental stages, and compulsory at the elementary education.
- Education shall be directed to the full development of the human personality and to the strengthening of respect for human rights and fundamental freedoms.
- It shall promote understanding, tolerance and friendship among all nations, racial or religious groups.
- Everyone has duties to the community in which alone the free and full development of his/her personality is possible.

Rights in India :

In modern India, the issue of rights flows from the Constitution which was adopted in 1952. The Constitution of India defines six fundamental rights – Right to Equality, Right to Freedom, Right against Exploitation, Right to Freedom of Religion, Cultural and Educational Rights, and Right to Constitutional Remedies. These rights are protected under Part III of the Constitution and are essential for ensuring individual liberty, justice, and equality.

Let us take a closer look at what the fundamental rights mean:

- **Right to Equality:** This right prohibits discrimination on the grounds of religion, race, caste, sex, or place of birth and ensures equality of opportunity in public employment. It has been used to abolish practices like untouchability.
- **Right to Freedom:** This includes freedoms of speech and expression, assembly, association, movement, residence, and profession.
- **Right against Exploitation:** This prohibits human trafficking, forced labor, and child labor.
- **Right to Freedom of Religion:** This allows for freedom of conscience and the right to freely profess, practice and propagate religion. It also allows for the establishment and administration of religious and minority educational institutions.
- **Cultural and Educational Rights:** These rights allow ethnic and religious minorities to preserve their language, script, and culture.
- **Right to Constitutional Remedies:** This gives citizens the right to move the Supreme Court or High Court for the enforcement of their fundamental rights.

Fundamental Duties & Responsibilities:

The United Nations had, in a General Assembly resolution of December 9, 1998, stated that everyone has the right, individually and in association with others, to promote and to strive for the protection and realization of human rights and fundamental freedoms at the national and international levels. In our country, the Constitution, while giving us the rights, has also defined eleven distinct responsibilities for the citizens. These are –

- To abide by the Constitution and respect its ideals and institutions, the National Flag and the National Anthem;
- To cherish and follow the noble ideals which inspired our national struggle for freedom;
- To uphold and protect the sovereignty, unity and integrity of India;
- To defend the country and render national service when called upon to do so;
- To promote harmony and the spirit of common brotherhood amongst all the people of India transcending religious, linguistic and regional or sectional diversities; to renounce practices derogatory to the dignity of women;

- To value and preserve the rich heritage of our composite culture;
- To protect and improve the natural environment including forests, lakes, rivers and wild life, and to have compassion for living creatures;
- To develop the scientific temper, humanism and the spirit of inquiry and reform;
- To safeguard public property and to abjure violence;
- To strive towards excellence in all spheres of individual and collective activity so that the nation constantly rises to higher levels of endeavour and achievement;
- Who is a parent or guardian to provide opportunities for education to his/her child or, as the case may be, ward between the age of six and fourteen years.

Some important rights :

In addition to the above, there are certain specific rights which are vital to the healthy growth and development of every society, and thus of the human race. Here a few of them:

Child Rights :

The UN General Assembly on November 29, 1989, adopted the UN Child Rights Convention Treaty – an international human rights treaty that recognizes children’s rights to survival, development, protection, and participation. It also establishes that children are human beings with their own set of rights and holds governments accountable for fulfilling these rights, which include education, healthcare, and protection from harm. It is this Convention which also defined that every individual below the age of 18 is a child.

Child protection is increasingly accepted as a core component of social development. In our country, both girls and boys face various problems like early marriage, domestic abuse, sexual violence, violence at home and in school, trafficking, online violence, child labour and bullying. All forms of violence, abuse and exploitation have lifelong consequences on lives of children.

Our country has a/ fairly comprehensive/ policy and legal framework to addressing rights and protection for children. These provide opportunities to ensure that all children have equal access to quality protection services. These laws also ensure that children grow up in a family environment, protected from violence, abuse and exploitation. The good news is that, awareness about violence against children, and about various legal provisions has increases

in recent times. Because of this several cases that may have earlier gone unnoticed, are now being reported.

The core child protection legislation for children in our country is enshrined in four main laws. These are – The Juvenile Justice (Care and Protection) Act (2000, amended in 2015); The Prohibition of Child Marriage Act (2006); The Protection of Children from Sexual Offences Act (2012), and The Child Labour (Prohibition and Regulation) Act (1986, amended in 2016).

POCSO Act, 2012 : The Protection of Children from Sexual Offences (POCSO) Act, 2012, is a comprehensive Indian law enacted to protect children (under 18) from sexual assault, harassment, and pornography. It ensures child-friendly, gender-neutral procedures, with 2019 amendments introducing stringent penalties, including the death penalty for aggravated offences.

Bharatiya Nyaya Sanhita : Bharatiya Nyaya Sanhita is the new criminal code of India that replaced the colonial-era Indian Penal Code (IPC) of 1860. It came into effect on July 1, 2024, aiming to modernize, simplify, and expedite the Indian criminal justice system.

Women's Rights :

Women and girls constitute and represent half of the world's population. This also means that women and girls have half of the total potential of the world's population. While gender equality is a fundamental human right, it is essential for every society to achieve and ensure gender equality and women rights in order to achieve full human potential and sustainable development.

Keeping this in mind, the UN General Assembly on December 18, 1979, adopted the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW in short). This legally binds all countries to take action to end discrimination against women and girls. Countries which have ratified it are also bound to ensure equality for women in all areas, including politics, education, and employment. The United Nations has a separate organization called 'UN Women' to promote women's rights, gender equality, and the empowerment of all women and girls.

Women's rights in India are protected by the Constitution in various ways. The Constitution guarantees equality, ensures non-discrimination, and provides special provisions for women and children. Some major legal protections for women include the right to equal opportunity in employment, equal pay for equal work, protection against domestic violence, and the right to property. In our country there are several laws which protect women and have provisions to punish those who violate rights of women.

(<https://www.ncw.gov.in/important-links/laws-related-to-women/>)

Rights of Persons with Disabilities:

Certain people have long-term physical, mental, intellectual, or sensory impairments which prevent them from participating in society on an equal basis with others because of various barriers. Such persons often face various challenges in society; these include discrimination, stigma, and a lack of accessibility in areas like transportation, healthcare, and employment. Keeping these in view, the UN General Assembly on December 13, 2006, adopted its Convention on the Rights of Persons with Disabilities. Ten years later, the Parliament of India passed the Rights of Persons with Disabilities Act in 2016.

This Act states that the Government and local authorities shall ensure that the persons with disabilities enjoy the right to equality, life with dignity and respect for his or her integrity equally with others. Some of the steps provided in this Act for the Government and local authorities to take steps to –

- (i) utilise the capacity of persons,
- (ii) ensure that no person with disability is discriminated on the ground of disability,
- (iii) ensure that no person shall be deprived of his or her personal liberty only on the ground of disability,
- (iv) ensure that women and children with disabilities enjoy their rights equally with others, and
- (v) protect persons with disabilities from all forms of abuse, violence and exploitation and to prevent the same.

Right to Information :

Transparency is a very important aspect in a democratic society. Thus, citizens have the right to access information held by various public authorities including the Government. While

the United Nations recognizes the right to information as a fundamental human right, in India, we have the Right to Information Act of 2005. This Act is considered as a fundamental right under Article 19(1)(a) of the Indian Constitution, and empowers citizens to access information from public authorities to promote transparency and accountability.

Assam Right to Public Services (Amendment) Act, 2024 :

The Assam Right to Public Services (Amendment) Act, 2024 marks a major step towards strengthening transparent, accountable, and citizen-friendly governance in Assam. It aims to ensure that every citizen receives notified public services within a fixed time frame and that officials are held accountable for delays or negligence. This amendment enhances the earlier provisions of the 2012 and 2019 Acts by introducing advanced mechanisms such as appointment of link officers for uninterrupted service delivery, clear timelines for appeals, and the establishment of the Assam State Commission for Right to Public Services to oversee implementation. The Act also emphasizes digital governance through the integration of the Sewa Setu Portal, enabling citizens to apply, track, and receive services online without visiting government offices. By promoting efficiency, transparency, and accessibility, the Assam Right to Public Services (Amendment) Act, 2024 reflects the Government's commitment to building a responsive and citizen-centric administration.

Purpose and Background of the ARTPS Act :

Before the introduction of the Assam Right to Public Services (ARTPS) Act, citizens often faced delays and difficulties in availing public services. There were several challenges:

- No fixed time limits for service delivery; officials could delay services at their discretion.
- No accountability mechanism to address failure in service delivery.
- Unethical practices and involvement of middlemen.
- Absence of monitoring systems for timely service delivery.

To overcome these issues and make governance more citizen-centric, transparent, and efficient, the Government of Assam enacted the Assam Right to Public Services Act, 2012 to:

- Ensure efficient and transparent delivery of government services
- Fix time limits for service delivery
- Hold officials accountable for delays or negligence.

- Create a system of appeals and penalties for service failures.
- Strengthen citizen trust in public institutions

The Act was further amended in 2019 and again in 2024 to include new provisions for digital services, improved monitoring, and the establishment of the Assam State Commission for Right to Public Services.

From RTPS to Sewa Setu Portal: A Digital Journey :

To modernize and simplify access to public services, the Government of Assam launched a digital transformation initiative. It established time-bound delivery and accountability mechanisms for government services. The Assam Citizen-Centric Service Delivery Project launched in 2016, supported by the World Bank, this project aimed to digitize and streamline public services. It concluded successfully in June 2023.

The RTPS Portal was inaugurated on 7th October, 2021 with 47 services. In June 2023, the portal was renamed as “Sewa Setu, Assam”, following a Cabinet decision. The portal is now managed by the Assam Information Technology, Electronics & Communication, and Citizen Service Delivery (AITEC & CSD) Society under the IT Department, Government of Assam.

Services Available on Sewa Setu Portal :

The Sewa Setu Portal provides access to more than **900 government services** online. These services are categorized as:

Type of Service	Description
End-to-End Services	Fully developed, processed, and delivered through Sewa Setu
Integrated Services	Front-end managed by Sewa Setu; backend handled by respective departments
Re-directional Services	Linked to department websites; processing done by respective departments

Citizens can apply for services, track their application, lodge grievances, and file appeals — all through the online portal or Common Service Centres (CSCs).

Rights and Sustainable Development :

We are all familiar with the term ‘Sustainable Development.’ It has been defined as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”.

Sustainable Development calls for concerted efforts towards building an inclusive, sustainable and resilient future for people and planet.

Three core elements have to harmonize in order to achieve Sustainable Development; these are – economic growth, social inclusion and environmental protection. All three are interconnected and are crucial for the well-being of individuals and societies.

On January 1, 2016, the United Nations launched its 2030 Agenda for Sustainable Development, and fixed 17 Sustainable Development Goals or SDGs. These are fundamentally linked to human rights principles like equality and non-discrimination, cover a wide range of human rights, and are aimed at realizing the human rights of all people. For example, SDG1 speaks about ensuring the right to an adequate standard of living; SDG 3 is related to health, SDG4 to education (SDG 4), and SDG5 to gender equality.

(Read about the Goals in detail in <https://sdgs.un.org/goals>)

EXERCISES**? Multiple Choice Questions :**

1. Human rights are meant for:
 - (a) Only rich people
 - (b) Only citizens
 - (c) All people universally
 - (d) Only adults
2. Human rights ensure:
 - (a) Inequality
 - (b) Dignity and equality
 - (c) Discrimination
 - (d) Power of government only
3. The Universal Declaration of Human Rights (UDHR) was adopted in:
 - (a) 1945
 - (b) 1947
 - (c) 1948
 - (d) 1950

4. The United Nations was formed in:
(a) 1940 (b) 1945
(c) 1950 (d) 1960
5. UDHR consists of:
(a) 20 Articles (b) 25 Articles
(c) 30 Articles (d) 40 Articles
6. Article 1 of UDHR states:
(a) People are unequal (b) All humans are born free and equal
(c) Only citizens have rights (d) Rights are limited
7. Fundamental Rights in India are protected under:
(a) Part I (b) Part II
(c) Part III (d) Part IV
8. Right to Equality prohibits:
(a) Freedom (b) Discrimination
(c) Education (d) Religion
9. Right to Freedom includes:
(a) Only speech (b) Speech and expression
(c) Only religion (d) Only movement
10. Right against Exploitation prohibits:
(a) Education (b) Child labour
(c) Freedom (d) Religion
11. Right to Constitutional Remedies allows citizens to:
(a) Avoid law (b) Approach courts
(c) Ignore rights (d) Break rules
12. Fundamental Duties were added by:
(a) 44th Amendment (b) 42nd Amendment
(c) 86th Amendment (d) 73rd Amendment
13. Total Fundamental Duties are:
(a) 10 (b) 11
(c) 12 (d) 9

14. Child Rights Convention was adopted in:
(a) 1985 (b) 1989
(c) 1995 (d) 2000
15. A child is defined as a person below:
(a) 16 years (b) 18 years
(c) 20 years (d) 21 years
16. CEDAW relates to:
(a) Child rights (b) Women's rights
(c) Environmental rights (d) Disability rights
17. Rights of Persons with Disabilities Act was passed in:
(a) 2000 (b) 2005
(c) 2010 (d) 2016
18. Right to Information Act was enacted in:
(a) 2000 (b) 2005
(c) 2010 (d) 2015
19. Sustainable Development means:
(a) Development for present only (b) Development harming future
(c) Meeting present needs without harming future (d) Only economic growth
20. Sustainable Development Goals (SDGs) were launched in:
(a) 2010 (b) 2012
(c) 2016 (d) 2020

? Short Type Questions :

1. When and how did the concept of human rights emerge in the modern times?
2. Mention any five aspects of the Universal Declaration of Human Rights.
3. What are the six fundamental rights defined in the Constitution of India? Elaborate on any two of them.
4. How many responsibilities have been defined by the Constitution of India? Mention any five of them.
5. Write short notes on any two of the following :
(i) Child Rights, (ii) Women's Rights, (iii) Rights of Persons with Disabilities.

6. What do you know about the Right to Information? Write in 100 words.
7. Can you name four important laws related to child rights protection in our country?
8. Define Sustainable Development. Write 100 words about the relationship between Rights and Sustainable Development.



Suggested Projects/Activities : Projects such as –

- i. **Social Media and Awareness:** How effective are platforms like Tik Tok and Instagram in promoting human rights education and activism among youth compared to traditional media?
- ii. **National and Minority Protections:** An inquiry into the impact of rising nationalist movements on the cultural and religious rights of minority groups in India with special focus on Assam.
- iii. **The Right to Healthy Environment Protections:** Investigating the disproportionate impact of climate change on indigenous communities and vulnerable populations.
- iv. **Implementation Challenges:** An investigation into the gaps between the ratification of human rights policies and their effective implementation at the national level.

MCQ ANSWERS

1. (c)	2. (b)	3. (c)	4. (b)
5. (c)	6. (b)	7. (c)	8. (b)
9. (b)	10. (b)	11. (b)	12. (b)
13. (b)	14. (b)	15. (b)	16. (b)
17. (d)	18. (b)	19. (c)	20. (c)



Additional Reading

By 2047, Generation Z will make up over one-third of the global workforce. Unlike previous generations, Gen Z is entering a job market fundamentally altered by advanced AI, an urgent green transition, and a complete reimagining of the traditional 9-to-5.

To thrive in 2047 and beyond, Gen Z is shifting from traditional career ladders to fluid, skills-based, and purpose-driven career paths.

1. Solar Energy Technician :

Like wind energy, solar power will continue to be a major part of humanity's transition toward a clean-energy future. The cost of solar energy keeps dropping year after year, so it's becoming much more affordable for businesses and homeowners. In cities all around the world, solar energy technicians are enjoying stable employment in a growing industry that makes a positive difference. In the U.S., about 30,000 solar technician jobs may become available over the decade from 2016 to 2026. Median yearly pay for this occupation was \$39,240 in 2016.

2. Wind Energy Technician :

With climate change threatening to severely damage the world as we know it, it will become more important to move to clean energy sources. Reducing carbon and methane emissions means transitioning away from fossil fuel sources like oil, coal, and natural gas. That means wind energy will likely be a big part of the future. It's already an industry that's grown a lot. And it will likely grow a lot more, meaning that skilled technicians will be needed to help with the installation, maintenance, and repair of giant wind turbines. About 14,000 job openings could be generated for wind energy technicians over the decade that ends in 2026. The median salary in this field was \$52,260 in 2016.

3. Nurse Practitioner :

Because of an aging and longer-living population, the health care system may have trouble keeping up with the growing influx of patients. Many regions could experience severe shortages

of doctors. They'll need more non-physician health professionals with the ability to diagnose and treat patients with various acute and chronic conditions. Registered nurses who get the right kind of advanced education at the graduate level can become nurse practitioners and help fill that void. In 2016, median yearly pay for nurse practitioners was \$100,910. And between 2016 and 2026, they could benefit from about 144,000 job openings.

4. Software Developer :

Computers, robots, and mobile devices are useless without the well-engineered software that gives life to the sophisticated hardware it runs on. As the Internet grows and machines get smarter and more connected to us and to each other, the need for talented software developers will expand. Mobile app development, especially, is considered one of the best careers for 2020 and beyond. In fact, almost 1.2 million total job openings are projected to become available in the software development field between 2016 and 2026. The median yearly pay for application software developers in 2016 was \$100,080.

5. Physical Therapist :

With more seniors in our communities, the need for physical therapy professionals will increase. Many seniors end up requiring some form of physical rehabilitation, pain management, mobility assistance, or therapeutic treatment as they age. From 2016 to 2026, about 177,000 jobs may become available for physical therapists. An additional 147,000 jobs could open up for physical therapist assistants. In 2016, the median salary for physical therapists was \$85,400.

6. Registered Nurse (RN) :

In total, more than two million jobs are expected to become available for RNs between 2016 and 2026.³ That number shouldn't be surprising given how quickly the senior population is growing in most regions. In all likelihood, RNs will continue to be in high demand for decades to come, even if their roles change a little because of technological advances and medical breakthroughs. The median salary for RNs in 2016 was \$68,450.

7. Health Services Manager :

The health care sector may undergo more changes over the coming decades than most other industries. Every health and medical organization will need highly knowledgeable leaders and managers to help them adapt to legal, regulatory, and technological changes while still improving the quality and efficiency of the services they deliver. Health and medical services managers earned median yearly pay of \$96,540 in 2016. And about 367,000 job openings may become available in this field over the decade that ends in 2026.

8. Data Analyst :

Thanks to computing advances and a cultural shift toward more tracking and measuring, the amount of data that gets collected every year grows by an astonishing amount. Organizations

of every type now have the ability to gather so much detailed information that it's becoming more and more difficult for a lot of them to figure out what it all means. They need professionals who can not only collect the data they need, but also spot patterns, identify past and current trends, and forecast future probabilities. The median salary for data analysts in May 2017 was \$57,261.

9. Digital Content Specialist :

One of the major cultural revolutions that keeps getting more entrenched is the move toward more dynamic, digital, interactive, and on-demand media. Because of digital devices that keep us constantly connected to almost any kind of information or entertainment we want to consume, the need for fresh content that breaks through the noise is never-ending. Organizations in every industry are discovering that generating new digital content is becoming a major key to sustaining their effectiveness. That's why digital content specialists—with all kinds of different job titles and abilities—are increasingly in high demand, especially with the growing popularity of remote work and freelance gigs. To prepare for this type of position, it's smart to get training in areas like Internet marketing, writing, and multimedia and digital arts.

10. Information Security Analyst :

As our modern way of life gets more intertwined with computers and dependent on information technology (IT), we all become more vulnerable to cyberattacks. So far, we've been lucky that criminal hackers haven't shut down critical infrastructure on a very large scale or for an extended period of time. But that day is probably coming unless we have enough computer security specialists to help the government and essential organizations protect their networks and IT systems. Cybersecurity is a world-wide issue, and the bad guys keep getting more sophisticated in their attacks. From 2016 to 2026, about 104,000 jobs are expected to open up for information security analysts. In 2016, they earned median yearly pay of \$92,600.

11. Computer Systems Analyst :

The reasons for getting an education in computer science will probably continue to multiply as information technology grows more complex and intertwined with everything in our lives. That growing complexity is why more and more organizations will likely need systems analysts going forward. Companies will need help choosing and implementing the best hardware and software, including (potentially) robots and artificially intelligent machines. From 2016 to 2026, computer systems analysts could benefit from 449,000 job openings. In 2016, the median salary in this field was \$87,220.

12. Biomedical Engineer :

Professionals in this field are already starting to revolutionize the health care industry. In fact, biomedical engineering is probably one of the best careers to get into if you want your

work to have a positive impact in the years ahead. After all, biomedical engineers are involved in all kinds of cutting-edge research and development. For example, many of them get to design things like sophisticated medical devices, artificial organs, bionic body parts, and biological implants. About 16,000 jobs are expected to become available in this field over the decade from 2016 to 2026. Biomedical engineers enjoyed a median salary of \$85,620 in 2016.

13. Mechanical Engineering Specialist :

Do you want to help develop some of the most exciting emerging technologies? Increasingly, mechanical engineers and mechanical engineering technicians are involved in the design and testing of things like advanced robots, automation equipment, 3D-printing machines, and clean energy devices. It's projected that, between 2016 and 2026, about 212,000 jobs could open up for engineers in this field and roughly 42,000 jobs could open up for technicians. In 2016, mechanical engineers earned median yearly pay of \$84,190. The technicians who helped them made \$54,480.

14. Electronics Engineering Specialist :

Like mechanical engineering pros, a lot of people in this field get to help design, test, and evaluate leading-edge technologies. As electronic circuitry and other components get smaller, more complex, and more powerful, it's up to these professionals to figure out how to take advantage of the latest technological advances. They may help develop things like better computers, automated machinery, handheld medical devices, and navigation and communications equipment. Going forward, some of them may even get to work on things like self-driving cars. From 2016 to 2026, job openings are expected to total 51,000 for computer hardware engineers, 92,000 for other electronics engineers, and 120,000 for electronics engineering technicians. In 2016, median salaries were \$115,080 for computer engineers, \$99,210 for other electronics engineers, and \$62,190 for technicians.

15. Digital Rehab Counsellor :

Do you ever feel overwhelmed by the incredible amount of digital information you consume in a day? Many people do. As more and more of our lives revolve around social media and other online activities, there's a growing awareness that a lot of us are actually addicted to the technology we use. So one of the top jobs of the future may involve helping people "detox" from their over-consumption of digital inputs. People with counseling training will likely be the best-equipped to pursue this type of job.

16. Blockchain Developer :

You've probably heard of the digital cryptocurrency called Bitcoin. But how much do you know about the underlying technology that makes it possible? Blockchain technology works as a distributed cryptographic ledger that can make economic and other types of transactions decentralized, faster, and more private. It's all a bit hard to understand, but many

experts believe that blockchain technology will eventually be just as world-changing as the Internet. That's why professionals who understand how to develop practical services and products with blockchain technology will probably be in high demand well into the future.

17. Civil or Commercial Drone Pilot or Dispatcher :

The government is figuring out the best way to regulate the use of drones. After all, people continue to dream up new ways to take advantage of their remote flight capabilities. Instead of drones mostly being used for military or recreational purposes, they are increasingly used for all kinds of civil and commercial applications. For example, companies like Amazon envision drones delivering packages. But they could also be used for things like removing waste from city streets, monitoring air pollution levels, and performing routine tasks in high places that are dangerous or hard to reach. So some companies and public agencies are beginning to put together teams of drone pilots and dispatchers to manage their fleets of small remote-controlled aircraft.

18. Smart-Building Technician :

With each passing year, more homes, offices, and factories are taking advantage of automation technology to control various building systems such as lighting, heating, air conditioning, and security. Everyday appliances like refrigerators are also becoming part of the growing Internet of Things. In the future, smart buildings may dominate entire cities as people embrace the freedom and convenience of automated control and hyper-connected systems. But we still need qualified people to install, maintain, and repair those systems. So tradespeople such as HVAC technicians are starting to become smart-building technicians.

19. 3D-Printing Technician :

Many futurists believe that we've only just begun to scratch the surface of what 3D-printing technology (aka additive manufacturing) will ultimately be capable of achieving. Hobbyists, industrial designers, biomedical engineers, and other people are already experimenting with on-demand manufacturing of things like tools, food, clothing, everyday household objects, medical implants, and aviation, automotive, and electronics components. As this technology advances, 3D-printing machines may become just as commonplace as refrigerators and microwaves. Eventually, every home and business could have one. And small, localized 3D-printing manufacturers in every town may ultimately replace large remote factories. So technicians who specialize in maintaining 3D-printing equipment will likely be in growing demand.

20. Augmented Reality Developer :

Is the real world too boring? Does it need some visual enhancements that provide extra information or entertainment value? Some people think so. That's why they're developing ways to superimpose digital images and information onto a person's normal perception of the world using special glasses, bionic contact lenses, or other technologies. Augmented reality

could eventually have a major impact on everyone's personal and professional lives since it will probably touch every industry, event, and public space. So augmented reality developers are needed to intelligently design and plan the safe and effective use of this technology.

21. Personal Privacy Advisor :

As technology evolves and touches more and more aspects of our lives, it's getting harder and harder to maintain our privacy. It's a challenge that will only get more complex as facial recognition and augmented reality technologies become widely adopted. Soon, you may not be able to go out into public without everyone else automatically learning your identity, age, marital status, place of employment, and criminal record (if you have one). So professionals who specialize in helping people protect their privacy—without losing out on some of the main benefits of social media or other technologies—will likely find themselves in demand.

22. Personal Brand Advisor :

Even among large, established organizations, hiring freelance professionals for short-term projects is becoming a pretty big trend that may expand well into the future. In fact, many futurists foresee a time when most jobs will be done on a temporary contract basis. If that holds true, workers will need to develop great personal brands and put a lot of effort into constant self-promotion. Personal brand advisors will help their clients establish and maintain public personas and professional reputations that make them stand apart from the competition.

23. Robotics Service Technician :

In the decades to come, almost every home could have sophisticated robots that assist with routine housework such as laundry, cooking, cleaning, and lawn maintenance. But those robots probably won't always work as they should. So skilled technicians may be needed to repair or reprogram the robots that get hacked, go haywire, or cease to function. In fact, robot technicians may eventually become just as commonplace as plumbers, electricians, auto mechanics, and other types of skilled tradespeople.

24. Remote Health Care Engineer :

As robotics and communications technologies get more advanced, it's becoming possible for doctors and other health care specialists to consult with patients without being physically present. Technology is even being developed and perfected to allow surgeons to perform remote operations with the assistance of robots. In the future, many more remote health care engineers will develop and coordinate the use of advanced technology that allows patients to get diagnosed and treated by almost any medical specialist in the world, regardless of where he or she is physically located.

25. Urban Agriculture Specialist :

Here's a startling fact: Each year, the urban population on Earth grows by the equivalent of about seven Chicago-sized cities.⁶ That means, from 2010 to 2050, the global population

of city dwellers will double, reaching about 5.2 billion people.¹ In addition, many of today's industrial farming practices are damaging the natural environment. So in order for cities to be sustainable, they'll need to grow their own food using sophisticated hydroponics and vertical farming methods. Demand for professional urban farmers will likely grow as more cities and urban dwellers realize that their survival depends on growing food locally.

26. Nanotech Engineer :

By manipulating matter at the level of atoms or molecules, it has become possible to imagine and develop a wide range of new innovations. For example, many people in this field envision a future in which self-replicating nanostructures are used in construction and nano-robots are put into the human body to assist the immune system and cure diseases. Nanoscale technologies are already being used to create advanced materials, and they're being incorporated into some electronics and consumer products (like clothing). As this technology matures, nanotech engineers will need to ensure that their creations don't pose a risk to the environment or human health.

27. Biomech Technician :

Bionic limbs continue to get more sophisticated. It's possible that, one day, even people without any disabilities will want biomechanical add-ons in order to enjoy super-human capabilities. But the technology will probably be so complex that only people with specialized skill sets will be able to repair it, upgrade it, or tune it up.

28. Genetic Engineer :

The idea of custom-designed and made-to-order babies may make a lot of us feel squeamish right now, but people's attitudes could change as genetic engineering matures and more companies begin to commercialize the resulting technology. Besides, advances in this field may also lead to cures for some of our most challenging diseases as well as treatments that slow or even stop the aging process. It will be up to governments to decide how to regulate an industry that will benefit from a lot of pent-up demand.

29. Tech Ethicist :

Humanity still hasn't fully learned that we shouldn't do something just because we can. Ethicists have the job of trying to help us avoid learning that lesson the hard way. They help us examine hard-to-answer questions in relation to new technologies and their potential consequences. For example, should we allow the creation of "designer babies?" Who has parental rights when a human is conceived, grown, and born in a laboratory, outside of a mother's womb? Should we grant artificially intelligent robots the same rights we have? How much information are we entitled to know about other people? The questions are almost limitless given how quickly technology is changing our world.

30. Virtual Reality Designer :

Most people like to travel and explore places they've never been. However, you don't necessarily have to physically travel anywhere in order to see and experience new places.

Whole virtual worlds are being created, and the supporting technology will increasingly allow you to interact with it using all of your senses. A lot of VR users might even form deep relationships with other people's virtual avatars while having adventures that they would never experience in the real world. As this technology matures, what's real and what's fantasy will start to blur together. Talented VR designers may become highly sought-after as VR developers race to fill a growing demand for more sophisticated, realistic, and imaginative virtual experiences.

31. Problem-Solving Competition Director :

Some people believe that solutions to humanity's biggest problems can be discovered by creating competitions with large monetary prizes for the winners. By incentivizing intense research and development, new teams of smart and creative people are formed that might not otherwise exist. XPRIZE is probably the most famous example of this type of incentivized competition. The XPRIZE Foundation runs competitions related to challenges like adult literacy, safer communities, space exploration, global education, artificial intelligence, access to fresh water, ocean exploration, and dealing with carbon emissions.⁷ Competitions of this nature may multiply at a faster rate, which will require professionals who can produce and manage them.

32. Synthetic Biology Engineer :

Did you know that scientists in this field are already creating lab-grown meat that doesn't require any farm animals to be raised or killed? That is just the tip of the iceberg when it comes to the staggering possibilities offered by synthetic biology. With their knowledge of molecular biology, physics, chemistry, and engineering, people in this occupation may eventually create all kinds of artificial organisms or redesign existing natural ones to deliver medical and industrial breakthroughs that nobody has imagined yet.

33. Project-Based Human Resources Director :

With more companies moving toward project-based employment models, it's likely that specialized human resources professionals will increasingly be needed for choosing and coordinating the best freelance workers for individual projects. In fact, organizations may hire project directors the same way movie studios hire film directors. A project director would be responsible for selecting his or her own team for a particular assignment from among all available freelance talent. Along with skills in human resources, this type of professional may also need a deep understanding of project management.

34. Weather Control Engineer :

Climate change is already being linked to many droughts, floods, and various severe and unexpected weather events. But as climate science advances, it may become possible to safely and effectively manipulate the weather in predictable ways. Geoengineering is already happening at smaller scales. It might not be able to reverse all the effects of global warming,

but it could give us the tools to ensure that certain regions aren't completely devastated by it. If the science advances that far, then some of the top jobs for the future will probably be related to controlling the weather.

Jobs That Don't Exist Quite Yet (But Probably Will)

Do you enjoy looking even further ahead? The world is changing quickly. Every day, new possibilities arise. So it's a good idea to know what the more futuristic job options might be. Some of the most promising careers for the future may include occupations like the following examples.

35. Organizational Disrupter :

As established companies and other organizations expand, they often lose some of their ability to innovate. That makes them vulnerable to competition from more nimble startups that frequently aren't so set in their ways. Since many futurists foresee a coming trend toward smaller, more adaptable organizations, a lot of large companies and non-profits may want to figure out how to make themselves more like their smaller competitors. The role of a disrupter would be to introduce a few seemingly chaotic changes in an organization that promote more creativity, risk-taking, collaboration, and innovation.

36. Personal Education Guide :

Going to school is still an effective way to learn and get recognized credentials. But as we move farther into the future, it's possible that education will become much more personalized and even more convenient than today's online programs. Personal education guides may act as coaches and counselors in helping people choose on-demand courses or designing customized training plans that utilize freelance instructors. And they may provide confirmation that their clients have successfully completed those courses and earned alternative credentials that more and more employers will recognize as being valid.

37. Custom Body Part Manufacturer :

At some point, waiting lists for organ transplants will probably become a thing of the past. Soon, doctors may be able to order up custom organs that are grown or 3D-printed using their patients' own cells. After all, scientists have already had some success at creating hearts, kidneys, and livers in their labs. They've even grown skin, ears, and other external body parts.

38. Brain Implant Specialist :

The human brain is incredibly complex, but mankind's understanding of how it works is growing faster than most of us probably realize. As we combine the rapid advances in neuroscience with the amazing advances in computer technology, we'll end up with some truly amazing possibilities. Special computer chips may one day be implanted into people's brains for benefits such as virtual telepathy, memory enhancements, disease management, mood regulation, paralysis treatments, and much more.

39. Personal Microbiome Manager :

When it comes to what you can do with a biology degree, this job probably isn't an option quite yet, but it could become a good one in the decades ahead. As scientists learn more about the many kinds of bacteria that live inside us and on our skin, they're discovering that these microorganisms may play essential roles in our health and well-being. In fact, having the right balance of bacteria might be crucial for things like preventing obesity, heart disease, chronic fatigue, and mental health problems. So specialists who know how to manage our personal microbiota may become just as important as today's physicians.

40. Pharmaceutical Artisan :

The pharmacy careers of today will probably be around for a long time. But as 3D printing grows more widespread, it may become possible to quickly produce customized medications for people on an on-demand basis (rather than giving out mass-produced meds). Artisanal drugs could be developed based on a person's unique genetics, habits, and medical history. Some pharmaceutical artisans may even create targeted treatments based on a person's own stem cells.

41. Urban Security Coordinator :

In a fast-changing world with more densely populated cities, keeping people safe from one another may become increasingly challenging. Criminal justice and law enforcement professionals will have to adapt and find ways to take advantage of new technologies without infringing on people's rights. That could lead to new positions for security pros with specialized skills in coordinating human workers and robots, artificial intelligence, and other advanced technologies within urban environments.

42. End-of-Life Manager or Memorializer :

With our culture and economy increasingly focused on the personal brands of individuals, it's possible that many people, well in advance of their deaths, will want to plan elaborate memorial services and celebrations that are more extravagant than the kind offered by most funeral directors today. In addition, laws may change to give more people the choice to end their lives through voluntary euthanasia, something that itself could become a specially planned event on the scale of a wedding. That might sound macabre or morally questionable right now, but it could become a big part of the event planning industry in the future. If so, professionals will be needed who can help coordinate major end-of-life celebrations and craft engaging tributes about dying individuals' lives and legacies.

43. Hyper-Intelligent Transportation Engineer :

We're quickly moving toward a future in which humans will no longer be the operators of transport vehicles. Self-driving cars are probably only the beginning. With more intelligent machines and several advanced technologies already in place or being developed, a future of fully automated transportation networks may become reality. A new paradigm of smart roads,

vacuum-tube tunnels, maglev trains, and many other advanced transportation systems could replace our current one.

44. Cyborg Designer :

By combining the best aspects of a natural organism with those of an advanced robot, it may be possible to create a new entity that is superior to the sum of its parts. So, in the future, highly creative cyborg designers might be in demand as humans try to merge themselves with machines in order to transcend their natural limitations. Other non-human cybernetic organisms may also be developed for use in health care, entertainment, sports, space exploration, and many other industries.

45. Robotic or Holographic Avatar Designer :

With people spending more of their time in virtual worlds, they might come to be a little disappointed with the real world. They might want to interact with their virtual friends or significant others without having to wear their VR gear. Thus, technology may eventually allow those virtual friends to emerge as real-life avatars in robotic bodies or 3D holograms. In the real world, they could become nearly as common as flesh-and-blood people. But they will take many different forms, including animals and strange alien-like creatures. Special designers will be needed to help create custom avatars that are just as appealing or imaginative in the real world as they are in the virtual ones they inhabit.

46. Space Tourism Guide :

Companies like SpaceX and Virgin Galactic already have plans well underway to commercialize space travel for the public. In the relatively near future, space tourists may be going into orbit for family holidays, a little adventure, or even to conduct business. If bases are established on the moon, they may be going there too. Of course, most of us aren't astronauts. That's why special guides will be needed to help people prepare for space travel and get adjusted to the new environment once they're in orbit.

47. Space Nurse or Physician :

Going into outer space presents all kinds of distinct medical challenges. The human body simply isn't designed for a zero-gravity environment. And it will probably be a long time until we have the practical technology to create artificial gravity. So space tourists will need to be monitored and, in some cases, treated for conditions such as muscle wasting or exposure to space radiation. Specialized doctors and nurses will likely be needed for extended stays in space in order to look after the many ordinary people who will take trips beyond Earth's atmosphere.

48. Landfill Worm Operator :

Earth doesn't have an endless supply of natural resources. The rapid industrialization of the world is beginning to cause shortages of some mined resources. Over the past several decades, a lot of the resources that have been extracted from the earth have ultimately been

buried again—in landfills. Many of the products we’ve thrown away contain valuable elements that industries need in order to manufacture new products and keep functioning. So solutions will need to be developed to extract those elements from the world’s many landfills. Some futurists envision a future in which robotic earthworms, partially operated by humans, mine landfills and extract the valuable resources while filling in the resulting voids with good-quality soil.

49. Extinct Species Revivalist :

Human actions continue to cause the extinction of various plants, animals, and microorganisms. In many cases, we don’t realize how important those species are to the health of the world’s ecosystems until they’re gone. As zoologists and other scientists learn more about the widespread ecological impacts of extinctions, it’s becoming clear that many species play critical roles in supporting the environments that humans rely on. So conserving threatened species is often essential. But science may also advance to the point that we can actually bring back some of the species that have already gone extinct and reintegrate them into their natural environments.

50. Android Relationship Counselor :

We’re still a long way off from being able to date robots that have human intelligence. But some scientists believe that artificial intelligence will eventually advance enough to make that possible. If it happens, the social ramifications could be enormous. The people who decide to pursue romantic relationships with artificially intelligent robots will likely need plenty of expert advice in order to navigate complex cultural expectations and steer clear of potential dangers. That will be especially true if we ever reach the Singularity—the theoretical point in the future when autonomous machines become more intelligent than humans.

51. Mind-Transfer Specialist :

Yeah, this occupation sounds far-fetched. But some experts think it could become a reality. Before the end of this century, it may be possible to upload a human mind to a computer and store it for later transfer back into the same or different human brain. Some people might even have their minds transferred into clones of themselves, synthetic organisms with artificial brains, or special cybernetic robots designed to extend their consciousness.

Did you know that the world’s population is expected to rise from 7.3 billion people in 2015 to 9.7 billion people by 2050 and 11.2 billion people by 2100? That makes sustainability a major challenge. In fact, projections indicate that almost half of the global population may be living in severely water-stressed regions by 2030.

Here’s why those projections are relevant: It’s impossible to fully examine future possibilities without acknowledging the many global threats to human civilization. They aren’t fun to think about, but they do matter. Any of them could have a major impact on our way of life, not least of all our options for employment.

For example, try to imagine the consequences of food and water shortages, severe disease pandemics, long power blackouts from solar storms, mass extinctions of plant and animal life, unbearable heat waves that last for many months, severe natural resource depletions, nuclear war, or permanently flooded cities due to rising sea levels.

The point isn't to fear the future. The point is to examine the full picture and consider ways that you may be able to help prevent those kinds of crises. Many of the best careers for future professionals will involve work that directly contributes to our collective security or sustainability.

Human Drive to Play and Explore :

In spite of the many challenges facing humanity, we can't stop exploring or having fun. And technology will keep opening new avenues for exploration, entertainment, and recreation. For example, imagine regular manned missions to the moon and Mars, space elevators to orbital hotels, underwater cruise ships, wall-sized holographic TVs, fully immersive virtual reality (VR) experiences, and real or holographic "avatars." All of those things could become reality in the coming decades. So new occupations will likely emerge based on what explorers and fun-minded visionaries imagine as being part of humanity's best future. Jobs that arise from these factors will be some of the coolest occupations that have ever existed.

Get the Skills You'll Need for What's Ahead :

Some of the best careers for the future already exist. And once you've learned skills for one type of career, it's generally easier to learn skills for something new. So any kind of training you get now may give you a foundation for the opportunities that are yet to come. Explore career-driven program options in your region by putting your zip code into the school finder below!

1. Organ creator :

The New Zealand-based website **Crimson Education** speculates that the shortage of transplantable organs will, eventually, lead scientists to create organs and body parts from stem cells and other materials, including some that may not even exist yet. Recruiters will be searching for candidates with a background in molecular biology, tissue engineering, or biomedical engineering.

2. Augmented-reality journey builder :

Starting with notions developed in *Total Recall* (memory implants of vacations) and *Westworld* (an android-staffed amusement park), AR journey builders will allow customers to experience virtually anything they wish. The AR journey builders will, according to **Cognizant's 21 Jobs of the Future**, "design, write, create, calibrate, gamify, build, and — most importantly — personalize the next generation of mind-blowing stories and in-the-moment vignettes" for well-heeled clients. The position will demand a film school degree as well as experience with massively multiplayer online role-playing games.

3. Metaverse planner :

Ironically, some of the first jobs created by the metaverse are **brick-and-mortar retail jobs** — Meta opened a California store in early May to hawk VR and AR gear. Down the road, of course, the metaverse will not only augment reality, it will augment **the LinkedIn list of in-demand jobs**. And one of those roles will be metaverse planner. “[T]he Planner,” **says the blog for HoneyPot**, a European job platform for tech talent, “will need to drive a strategic portfolio of opportunities from proof-of-concept to pilot to deployment.” Planners will need management experience and an entrepreneurial spirit. And, obviously, they’ll require a metaversity education.

4. Biofilm installer :

Biofilms — collections of microbial cells attached to wet surfaces — are icky, sticky, and tricky. They are literally slime and pond scum and the source of 80% of microbial infections. But they are also a remarkable tool for sewage treatment, oil spill cleanup, and generating power. “By coating certain surfaces in the bathroom and kitchen of homes, they will become key tools for environmentally friendly buildings,” **says the Canadian Scholarship Trust (CST)**, which also sees a big role for biofilm installers in “retrofitting smart, energy-efficient buildings.” It’s possible that biofilm installers will fit showers with microbes that attack bathroom mildew or, more broadly, equip homes with a living organism to process the garbage.

5. Earthquake forecaster :

Many of the jobs on this list would have been inconceivable even a few years ago, but the role of earthquake predictor has been a job of the future for at least 50 years. In the 1970s, many scientists said that accurate, timely earthquake prediction was just around the corner. Five decades later, that’s where it remains — just around the corner. But an acceleration of **machine learning applied to seismology** in recent years has also accelerated hopes that businesses and governments might be hiring forecasters soon. Clearly, a background in geology and geophysics will come in handy, but so might a little *abracadabra*.

6. Makeshift structure engineer :

The days (not so long ago) of using 3D printing to create keychains and Yoda heads have been replaced by the technology being employed to produce prosthetic hands and prototypes of jet engines. In the future, makeshift structure engineers will **deploy 3D printing to construct temporary buildings** for those in need after natural disasters or armed conflict (can’t we manage to get rid of that by 2030?). “3D printing will be able to print the parts needed to create small housing units, similar to trailers, in several hours or days, so that they can be assembled quickly for those in need,” CST says. Makeshift structure engineers will have a background in industrial design and structural engineering.

7. Algorithm bias auditor :

Algorithms drive much of 21st-century life, from the musical choices put forth by **Spotify** to the dating options offered by **Tinder**. The contemporary hiring process — from which

postings are teed up to job seekers to which candidates an ATS serves up to recruiters — is also powered by them. “[G]iven the increasing statutory scrutiny on data,” **says the World Economic Forum**, “it’s a near certainty that when it comes to how they’re built, verification through audits will help ensure the future workforce is also the *fair* workforce.” Algorithm bias auditors will have a background in computer science or data analytics.

8. Rewilder :

These are the radical transformers who will potentially turn a concrete jungle into a green belt. **Rewilders will focus on undoing the blight of two centuries of industrial revolution**, replacing aging factories and unneeded buildings, roads, and fences with forests and native species. Rewilders will likely have a background in agriculture, wildlife management, and environmental science.

9. Human-machine teaming manager :

There may be no other position that puts its occupant in the middle of the future of work quite the way the role of human-machine interface manager does. “As a man-machine teaming manager,” **Cognizant says**, “you will identify tasks, processes, systems, and experiences that can be upgraded by newly available technologies and imagine new approaches, skills, interactions, and constructs. You will define roles and responsibilities and set the rules for how machines and workers should coordinate to accomplish a task.” Requirements? Recruiters will be searching for candidates with a background in experimental psychology or neuroscience paired with work in computer science, engineering, or HR.

10. Digital currency advisor :

With the soaring interest in cryptocurrencies such as Bitcoin, Litecoin, and Ethereum, investors now have enormous opportunities — **and potential exposure** — in unregulated financial instruments. “Digital currency advisors,” **CST says**, “specialize in these currencies and show people how to manage their wealth by using the right balance of systems.” Digital currency advisors will have backgrounds in accounting, financial management, and data security — **but probably not professional basketball (as called out in this TV ad with Stephen Curry)**.

11. Drone traffic optimizer :

Once a novelty, drones today are filming our movies and fighting our wars, policing our neighborhoods, and delivering our packages (well, **that’s the plan anyway**). In another decade or so, they will be everywhere. And someone will need to oversee their flight paths so they don’t begin to wreak complete havoc. In the United States, **NASA and the FAA are working on this issue** at a national level. The drone traffic optimizers will handle at a local level.

12. Autonomous car mechanic :

The coming lines of autonomous cars from companies such as **Tesla, Waymo, GM, Hyundai, Cruise, Pony.ai, and Ford** will drive themselves. But they won’t repair themselves.

And the mechanics who will care for cars will combine an old- fashioned love of tinkering **with a cutting-edge understanding of technology**. Mr. Goodwrench meets Watson.

13. Smart home design manager :

The **Home of Tomorrow** was once a world's fair staple. But now that future has arrived and current homes can control their own lighting, temperature, and security. "The rise of smart home design managers," says the **World Economic Forum**, "will boom as homes are built — or retrofitted — with dedicated home office spaces, replete with routers in the right place, soundproofing, separate voice-driven entrances." These managers will be "home-schooled" with advanced degrees in AI, robotics, and residential architecture.

14. Agile supply chain worker :

In a global and online economy, businesses will increasingly need to respond in real time to fluctuations in both supply (where can I get parts faster, cheaper, of better quality?) and demand (why the sudden interest for our product in Southeast Asia?). "[C]ompanies need people who constantly scout out new sources for materials and components and connect company supply lines on the fly to keep costs low and turnaround fast," **says CST**. Recruiters will look for candidates who've studied supply chain management and logistics at business school. **Military veterans** with experience in SCM will also be high in demand.

15. Trash engineer (aka, Garbage designer) :

Humans, according to the United Nations, **produce over 2 billion tons of garbage each year**. And we're running out of places to stash our trash. But to those who say there's no way out of this mess, our future trash engineers say, "Rubbish!" *The Thrillist* weighs in: "Garbage designers . . . will be charged with coming up with **clever methods to upcycle trash** on a large scale, and manufacturers of everything from toys to clothes to furniture will hire them to find more efficient ways to use and reuse their byproducts." A background in materials science and industrial design will be needed for those who dream of nothing less than cleaning up the world.

- **AI & Machine Learning Specialist** : Developing algorithms and training models for automation.
- **Data Scientist/Analyst** : Transforming big data into actionable business insights.
- **Cybersecurity Analyst** : Protecting digital assets, critical infrastructure, and data privacy.
- **Cloud Architect/DevOps Engineer** : Managing cloud infrastructure and scaling systems.
- **Blockchain Developer** : Designing secure decentralized applications.
- **Prompt Engineer/AI Content Strategist** : Designing AI-powered applications and workflows.

Artificial Intelligence (AI), Coding, Machine Learning, Data-Science

Q. What is Artificial Intelligence (AI)

Artificial Intelligence (AI) refers to the ability of a computer or machine to perform tasks that typically require human intelligence, such as learning, problem-solving, and decision-making. It essentially involves equipping machines with the capacity to reason, learn, and adapt like humans.

Key aspects of AI include:

- **Learning:** AI systems can learn from data, improving their performance over time.
- **Problem-solving:** AI can be used to solve complex problems by identifying patterns and making informed decisions.
- **Decision-making:** AI algorithms can analyze information and make decisions based on pre-programmed rules or learned patterns.
- **Natural language processing (NLP):** AI can understand and generate human language.
- **Computer vision:** AI can “see” and interpret images, allowing machines to identify objects and scenes.
- **Speech recognition:** AI can understand and respond to human speech.

Examples of AI in use:

- **Voice assistants:** Devices like Siri and Alexa use AI for voice recognition and natural language processing.
- **Self-driving cars:** These vehicles rely on AI to navigate roads and make decisions about traffic.
- **Medical diagnosis:** AI can help doctors analyze medical images and make diagnoses.
- **Customer service chatbots:** AI-powered chatbots can provide customer support and answer questions.
- **Recommendation systems:** Platforms like Netflix and Amazon use AI to suggest movies, books, and products.

Q. What is coding?

Coding, also known as computer programming, is the process of creating instructions for a computer using programming languages. These instructions, or code, tell the computer what actions to perform and how to perform them. It’s the backbone of all software, applications, and websites. Code acts as a language that allows humans to communicate with computers, enabling them to perform a wide range of tasks. Coding is essential for creating software, applications, websites, and other digital tools. Programming languages, like Python, Java, or HTML, provide the rules and structure for these commands.

Q. What is machine learning?

Machine learning (ML) is a branch of artificial intelligence (AI) focused on enabling computers and machines to imitate the way that humans learn, to perform tasks autonomously, and to improve their performance and accuracy through experience and exposure to more data.

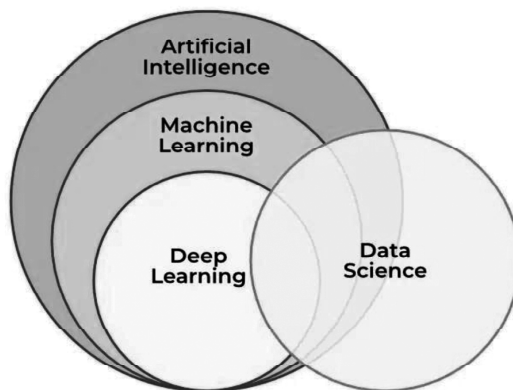
A machine learning algorithm into three main parts :

1. **A Decision Process :** In general, machine learning algorithms are used to make a prediction or classification. Based on some input data, which can be labelled or unlabelled, your algorithm will produce an estimate about a pattern in the data.
2. **An Error Function :** An error function evaluates the prediction of the model. If there are known examples, an error function can make a comparison to assess the accuracy of model.
3. **A Model Optimization Process :** If the model can fit better to the data points in the training set, then weights are adjusted to reduce the discrepancy between the known example and the model estimate. The algorithm will repeat this iterative “evaluate and optimize” process, updating weights autonomously until a threshold of accuracy has been met.

Q. What is deep learning?

Deep learning is a subset of machine learning that uses artificial neural networks with multiple layers to learn from data. These networks are inspired by the human brain and can be used to solve complex problems like image recognition, natural language processing, and speech recognition.

Machine learning and Deep Learning both are subsets of artificial intelligence but there are many similarities and differences between them.



Q. What is Data-Science?

Data science is a multidisciplinary field that combines statistical analysis, machine learning, and programming to extract knowledge and insights from data. It involves collecting, cleaning,

analyzing, and interpreting large amounts of data to identify patterns, trends, and make predictions.

Key aspects of data science:

- **Data Collection :** Gathering data from various sources, including databases, APIs, web scraping, and more.
- **Data Cleaning and Preparation :** Ensuring data is accurate, consistent, and ready for analysis by handling missing values, outliers, and inconsistencies.
- **Data Analysis :** Applying statistical methods, machine learning algorithms, and data visualization techniques to identify patterns, trends, and relationships within the data.
- **Data Interpretation :** Drawing meaningful conclusions from the analysis and communicating the insights to stakeholders.
- **Decision Making :** Using data-driven insights to inform strategic decisions, improve business operations, and make predictions about future outcomes.

By the year 2047, Generation Z will be in their late 40s to mid-50s. They will no longer be the “fresh faces” of the workforce; instead, they will be the **senior leaders, strategists, and executives** guiding a completely transformed global economy.

If 2030 is about adapting to AI, **2047 will be about managing a fully synthesized world** where the lines between biology, technology, and ecology have completely blurred. The concept of a single, linear career will be entirely obsolete, replaced by a “portfolio career” model where individuals hold multiple specialized fractional roles simultaneously.

Here is what the career landscape looks like for Gen Z in 2047:

Frontier Career Sectors of 2047 : By mid-century, entirely new economic sectors will dominate the global GDP, requiring experienced leaders who understand both complex systems and ethical humanity.

Bio-Digital & Synthetic Biology Economy : By 2050, we will not just write code for computers; we will write code for biology. Synthetic biology will drive medicine, manufacturing, and agriculture.

- **Genetic Portfolio Manager :** Tailoring lifelong, preemptive healthcare, life-extension therapies, and genetic optimization plans for individuals.
- **Biomimetic City Architect :** Designing urban centers that function like living ecosystems—using self-healing concrete, buildings that absorb carbon, and bioluminescent street lighting.
- **Organ and Tissue Farm Director :** Overseeing the industrial-scale 3D printing and growth of personalized human organs and lab-grown sustainable materials.

Planetary Restoration & Geoengineering : With the climate crisis reaching critical stabilization points by 2050, the global focus will shift from merely reducing emissions to actively repairing the planet.

- **Geoengineering & Weather Modification Strategist:** Managing large-scale projects like solar radiation management, cloud seeding, and ocean iron fertilization to balance regional climates.
- **De-Extinction & Biodiversity Ecologist:** Reintroducing genetically resurrected or modified species into damaged ecosystems to restore ecological balance.
- **Circular Economy Arbitrageur:** Managing localized, zero-waste supply chains where every byproduct of manufacturing is instantly redirected as a resource for another industry.

The Off-World & Space Economy : Space will no longer be the domain of governments. By 2050, commercial asteroid mining, orbital manufacturing, and lunar tourism will be thriving industries.

- **Asteroid Mining Operations Director:** Coordinating autonomous robotic fleets extraction of rare-earth elements and water from Near-Earth Objects (NEOs).
- **Space Traffic & Orbital Debris Manager:** Regulating the dense network of satellites, commercial stations, and clearing millions of pieces of hazardous space junk.
- **Extraterrestrial Agriculture Specialist:** Developing microgravity-resistant crops and closed-loop hydroponic systems for long-term lunar and Martian settlements.

Mind-Machine Integration & Digital Consciousness : Brain-Computer Interfaces (BCIs) will have evolved from medical novelties into standard workplace tools, fundamentally altering human communication.

- **Memory & Cognitive Enhancements Consultant:** Helping professionals safely navigate neural implants, managing memory storage, and cognitive processing upgrades.
- **Synthetic Consciousness Ethicist:** Managing the legal rights, safety, and operational integration of sentient AI entities and digital human twins.



Let us ponder into a few top Govt. of India initiatives suitable for the students

1. **Online Labs for School Experiments (OLabs) :** <https://www.olabs.edu.in/> Online Labs (OLabs) in India, primarily developed by Amrita University and CDAC Mumbai, offer free interactive simulations for Physics, Chemistry, Biology, and Maths, aligned with CBSE/NCERT curriculum for classes 9-12. These labs enable students to conduct experiments virtually, accessible anytime, anywhere, with additional resources for English and Math.
2. **National Scholarship Portal (NSP):** <https://scholarships.gov.in/> The National Scholarship Portal (NSP) is a digital, centralized platform by the Government of India designed to manage the entire lifecycle of student scholarships, from application submission to direct fund distribution.
3. **National Programme on Technology Enhanced Learning (NPTEL):** <https://nptel.ac.in/> National Programme on Technology Enhanced Learning is a premier Indian e-learning initiative funded by the central Ministry of Education. Launched in 2003 as a collaborative project by seven Indian Institutes of Technology (IITs) and the Indian Institute of Science (IISc), it serves as the world's largest online repository for engineering, basic sciences, and humanities course content.
4. **Skill India Digital HUB (SIDH):** <https://www.skillindiadigital.gov.in/home> The Skill India Digital Hub (SIDH) is India's premier national Digital Public Infrastructure (DPI) designed to unify the country's skilling, education, employment, and entrepreneurship landscape. Launched by the Ministry of Skill Development and Entrepreneurship (MSDE) and driven by the National Skill Development Corporation (NSDC), the platform serves as a one-stop digital solution for lifelong learning and career advancement.
5. **my Scheme :** <https://www.myscheme.gov.in/> myScheme is a centralized national platform launched by the Government of India to offer a one-stop search and discovery portal for various government welfare schemes. Developed by the National e-Governance Division (NeGD) and supported by MeitY, the platform eliminates the need for citizens to search across multiple department websites.

CAREER GUIDANCE

- **My Career Advisor by Ministry of Education:** https://play.google.com/store/apps/details?id=com.wadhwani.career&hl=en_IN&pli=1
- **Link of Career Guidance:** <https://ssa.assam.gov.in/portlets/career-guidance>

PRACTICE QUESTION PAPERS

Previous Year ADRE/SLRC Question Paper Class 12th Standard

Full Marks : 150

Time : 3.00 Hours

1. A number was increased by 40% and thereafter decreased by 40%. The net change in the number in percentage is
(A) 16% increase (B) 16% decrease
(C) 32% decrease (D) No change
2. If the average age of A, B and C is 22 years and the average age of B and C is 25 years, then find the age of A after 9 years from now.
(A) 25 years (B) 35 years
(C) 50 years (D) 45 years
3. The smallest among $\sqrt{\frac{1}{2}}$, $\sqrt{\frac{1}{3}}$, $\sqrt{\frac{1}{4}}$ and $\sqrt{\frac{2}{3}}$ is
(A) $\sqrt{\frac{1}{2}}$ (B) $\sqrt{\frac{1}{3}}$
(C) $\sqrt{\frac{1}{4}}$ (D) $\sqrt{\frac{2}{3}}$
4. If $\frac{x}{3} = \frac{y}{4} = \frac{z}{7}$, then $\frac{x+y+z}{z}$ is equal to
(A) 2 (B) 3
(C) 4 (D) 5
5. Two numbers are in the ratio 2 : 3 and the product of their HCF and LCM is 96. The sum of the two numbers is
(A) 18 (B) 20
(C) 22 (D) 24
6. The value of $\sqrt[3]{8^2}$ is
(A) 1 (B) 3
(C) 2 (D) 4
7. A certain amount invested in a firm would become double at the end of one month, but it deducts an amount of ₹120 on every doubling. A person invests an amount of ₹105 and continues for 3 months without investing any additional amount. At the end of 3 months, his net income is
(A) ₹ 55 (B) ₹ 0
(C) ₹ 270 (D) ₹ 45
8. The count of prime numbers between 80 and 100 is
(A) 2 (B) 5
(C) 3 (D) 4
9. Find the value of $[(10^7 \div 10^2) + (10^3 \div 10^{-2})] \div 10^5$.
(A) 100 (B) 200
(C) 2 (D) 1
10. If A : B = 3, then 144A : 36B is
(A) 4 (B) 12
(C) 3 (D) 16
11. The fraction equivalent of the recurring number $2.\overline{19}$ is
(A) $\frac{271}{99}$ (B) $\frac{217}{99}$
(C) $\frac{219}{99}$ (D) $\frac{291}{99}$
12. The largest of 2^6 , 3^5 , 4^4 and 5^3 is
(A) 2^6 (B) 3^5
(C) 4^4 (D) 5^3
13. For a bicycle rider, it is seen that for every two complete pedaling, the front wheel of the bicycle makes 3 complete turns. If the radius of the bicycle wheel is 70 cm, the distance (in metres) covered by the bicycle in 10 complete pedaling is
(A) 7π (B) 14π

- (C) 21π (D) 28π
14. The base and the height of a right-angled triangle are equal in magnitude and the length of the third side is $2\sqrt{2}$ cm. The area of the triangle is
 (A) 2 sq. cm (B) $2\sqrt{2}$ sq. cm
 (C) 4 sq. cm (D) $4\sqrt{2}$ sq. cm
15. In a range of consecutive numbers starting with 1, all the even numbers are removed. From the remaining, consider the first 7 numbers. The sum of these 7 numbers is
 (A) 35 (B) 42
 (C) 49 (D) 56
16. Two numbers A and B are first added and squared to get C. In the next step, B is subtracted from A and the result is squared to get D. The result $C - D$ expressed in terms of A and B is
 (A) $A(A + B)$ (B) $4(A - B)$
 (C) $\frac{AB}{4}$ (D) $4AB$
17. Find the least number by which 1250 must be multiplied to make it a perfect square.
 (A) 4 (B) 3
 (C) 5 (D) 2
18. When the numerator of a fraction is multiplied by 4 and the denominator by 9, the fraction reverses. The fraction is
 (A) $\frac{4}{5}$ (B) $\frac{2}{3}$
 (C) $\frac{5}{4}$ (D) $\frac{3}{2}$
19. At what percentage of simple interest does an amount of money double in 12 years?
 (A) $9\frac{1}{2}\%$ (B) $8\frac{1}{2}\%$
 (C) $8\frac{1}{3}\%$ (D) $9\frac{1}{3}\%$
20. The ratio of the radii of two circles is 1 : 3. The ratio of their areas is
 (A) 1 : 6 (B) 2 : 9
 (C) 1 : 9 (D) 6 : 9
21. 100% of 100 when added to 200% of 200 would result
 (A) 300 (B) 400
 (C) 500 (D) 600
22. If $a+b=8$, $b+c=20$ and $a+c=18$, then the value of $a^2 + b^2$ is
 (A) 34 (B) 43
 (C) 46 (D) 64
23. If $2^x = 32$, then the value of x is
 (A) 4 (B) 5
 (C) 6 (D) 7
24. The sum of 5 consecutive odd numbers is found to be 95. The largest of the numbers is
 (A) 17 (B) 21
 (C) 23 (D) 19
25. If the decimal number $34p5$ is divisible by 9, then the value of p is
 (A) 8 (B) 7
 (C) 4 (D) 6
26. The maximum area of the circle that can be drawn within a square of side 4 cm is
 (A) $4\pi^2$ cm² (B) 4π cm²
 (C) $\frac{\pi}{4}$ cm² (D) $\frac{\pi^2}{4}$ cm²
27. If today is Sunday, then the day after 92 days will be
 (A) Saturday (B) Friday
 (C) Sunday (D) Monday
28. When three times of a given number is subtracted from the square of the number, the result is the number itself. The number is
 (A) 4 (B) 2
 (C) -2 (D) -4
29. In Roman numeral, XCI represents the decimal number
 (A) 41 (B) 21
 (C) 91 (D) 111

30. A ladder of length 13 m is leaning against a vertical wall with the upper end at the height of 5 m. The horizontal distance between the foot of the wall and the lower end of the ladder is
(A) 9 m (B) 5 m
(C) 11 m (D) 12 m
31. The median of the sequence of numbers 2, -1, 3, 1, -2, 5, 6 is
(A) 1 (B) -1
(C) 2 (D) 3
32. A person moves along a path such that he is always away from a given point by 7 m. After moving for some time, he again reaches his starting point. The approximate distance the person moved during the time is
(A) 22 m (B) 44 m
(C) 122 m (D) 144 m
33. A cube of volume 1m^3 is cut equally into smaller cubes of volume 1cm^3 each. The number of smaller cubes found is
(A) 10000 (B) 100000
(C) 1000 (D) 1000000
34. The smallest positive integer that is simultaneously divisible by 6, 8 and 12 is
(A) 24 (B) 18
(C) 48 (D) 36
35. The difference between the smallest 3-digit even natural number and the largest 2-digit even natural number is
(A) 1 (B) 2
(C) 3 (D) 4
36. Identify the adverb in the following sentence :
He could not go deep into the forest.
(A) Deep (B) Go
(C) He (D) Into
37. From the list below, identify the antonym of 'cheap'.
(A) Price (B) Poor
(C) Expensive (D) Rice
38. What is the synonym of 'furious'?
(A) Laughter (B) Witch
(C) Impure (D) Angry
39. Identify the incorrectly spelt word.
(A) Square (B) Parpendicular
(C) Diagonal (D) Triangle
40. Give one-word substitution for 'a person who loots and plunders ships'.
(A) Robber (B) Pirate
(C) Dacoit (D) Looter
41. What is meant by 'to get the green signal'?
(A) To stop others
(B) To go away
(C) To get permission
(D) To get the keys of a car
42. Fill in the blank :
Lokesh can jump very _____.
(A) high (B) higher
(C) highest (D) tall
43. What is the collective noun for 'fish'?
(A) Swarm (B) Pack
(C) School (D) Herd
44. Fill in the correct conjunctions in the following :
_____ Reshma _____ Padma knew the directions, and now they are lost.
(A) Either, or (B) Both, and
(C) Not only, but also (D) Neither, nor
45. Which of the following punctuation marks is called 'apostrophe' ?
(A) (-) (B) (/)
(C) (') (D) (:)
46. Which of the following means similar to 'elevated'?
(A) Topped (B) Wished
(C) Promoted (D) Transferred
47. What is meant by 'to create a ruckus' ?
(A) Make loud noise (B) An artistic work
(C) Produce music (D) Bake a cake
48. Which of the following sentences is correct?

- (A) She had not coming to the wedding.
 (B) She is not come to the wedding.
 (C) She did not coming to the wedding.
 (D) She is not coming to the wedding.
49. Choose the correct option :
 We _____ the National Anthem every morning at school.
 (A) sanged (B) sing
 (C) sings (D) singed
50. Which of the following pronouns refers to 'myself' ?
 (A) We (B) They
 (C) I (D) You
51. Identify the incorrectly spelt word.
 (A) Damsel (B) Wicked
 (C) Volcano (D) Mountein
52. Identify the correctly spelt word.
 (A) Mongrel (B) Marval
 (C) Martal (D) Middel
53. Identify the preposition in the following sentence:
 The cat was sleeping under the cot.
 (A) Sleeping (B) Under
 (C) Cot (D) Was
54. Identify the incorrect set.
 (A) Bad : Worse : Worst
 (B) Poor : Poorest : Poorer
 (C) Rich : Richer : Richest
 (D) Good : Better : Best
55. Identify the verb in the following sentence:
 Neeraj ran very fast.
 (A) Very (B) Neeraj
 (C) Fast (D) Ran
56. Which word of the following is an example of pronoun?
 (A) Again (B) Pink
 (C) They (D) Speed
57. What would be the antonym of 'friend' ?
 (A) Foe (B) Unfriend
 (C) Dislike (D) Buddy
58. From the list below, identify the synonym of 'lament' .
 (A) Sad (B) Mourn
 (C) Copied (D) Molecule
59. Which word is incorrectly spelt?
 (A) Basically (B) Essentially
 (C) Primarily (D) Varbally
60. Give one-word substitution for 'life history of a person written by another person' .
 (A) Autobiography (B) Biography
 (C) Monograph (D) Bigamy
61. What does 'in a nutshell' mean?
 (A) Peanuts and almonds
 (B) Very tough explanation
 (C) Expressed in short
 (D) Important discussion
62. Fill in the blank :
 Tuhin ran _____ than Zubin to win the race.
 (A) fast (B) faster
 (C) fastest (D) fasting
63. Identify the collective noun for 'dogs' .
 (A) Gang (B) Herd
 (C) Team (D) Pack
64. Which of the following punctuation marks is called 'hyphen' ?
 (A) (-) (B) (/)
 (C) (') (D) (:)
65. What is the opposite of 'sorrow' ?
 (A) Joy (B) Happy
 (C) Laugh (D) Beauty
66. Which of the following means 'to get rid of a problem' ?
 (A) To hammer it out
 (B) To get to the bottom of
 (C) To get the monkey off one's back
 (D) To get the acts together
67. Identify the grammatically incorrect sentence.
 (A) I want to go home now.

- (B) I wish to go home now.
 (C) I shall go home now.
 (D) I went to go home now.
68. Choose the correct option :
 Is your brother _____ to the gym?
 (A) gone (B) going
 (C) go (D) went
69. Which pronoun is used for 'non-living thing'?
 (A) I (B) We
 (C) Us (D) It
70. Identify the incorrectly spelt word.
 (A) Monkey (B) Moniker
 (C) Matress (D) Molten
71. What was the last capital of Ahom Kingdom?
 (A) Charaideo (B) Jorhat
 (C) Rangpur (D) Garhgaon
72. What was the name of Srimanta Sankardeva's grandmother?
 (A) Aidew Aita (B) Jakoimoti
 (C) Kherxuti (D) Soirindhri
73. Who was known as the 'Lion of Mysore'?
 (A) Adil Shah (B) Hyder Ali
 (C) Krishnaraja Wodeyar (D) Tipu Sultan
74. Which State of India has Jallianwala Bagh?
 (A) Punjab (B) Haryana
 (C) Rajasthan (D) Uttar Pradesh
75. Which of the following countries was a part of the Axis Group during the World War II?
 (A) England (B) Japan
 (C) France (D) Soviet Union
76. The ruins of Angkor Wat are in which country?
 (A) New Zealand (B) Indonesia
 (C) Vietnam (D) Cambodia
77. Which of the following countries does Assam share international borders with?
 (A) Bhutan and China
 (B) China and Bangladesh
 (C) Bangladesh and Bhutan
 (D) Myanmar and Bangladesh
78. If an airplane is flying directly from Chennai towards Guwahati, in which direction is it flying?
 (A) From South to East
 (B) From East to West
 (C) From West to East
 (D) From North to East
79. What is the Westernmost State of India?
 (A) Rajasthan (B) Punjab
 (C) Maharashtra (D) Gujarat
80. Which of the following peaks does not belong to the Himalayas?
 (A) Annapurna (B) Kangto
 (C) Anamudi (D) Kamet
81. The Great Barrier Reef is located in the seas near which continent?
 (A) North America (B) Australia
 (C) Africa (D) Europe
82. Which of the following is a mountain range of South America?
 (A) Andes (B) Karakoram
 (C) Alps (D) Caucasus
83. The giant waves caused by volcanic eruptions or earthquakes under the sea are known as
 (A) tsunami (B) cyclone
 (C) blizzard (D) landslide
84. Who is the Chairman of the Rajya Sabha?
 (A) The Prime Minister
 (B) The Vice President
 (C) The Speaker of the Lok Sabha
 (D) The President
85. Who administers the Oath of Office to the President of India?
 (A) The Prime Minister
 (B) The Chief Justice of the Delhi High Court
 (C) The Chief Justice of the Supreme Court
 (D) The Speaker of the Lok Sabha

86. Which of the following musical instruments of Assam is usually made of bamboo?
 (A) Doba (B) Mridanga
 (C) Dotara (D) Toka
87. Where is the Tocklai Tea Research Centre located?
 (A) Jorhat (B) Lakhimpur
 (C) Tinsukia (D) Dhemaji
88. The Gita Press, a unit of Govind Bhawan Karyalaya, is located in which State?
 (A) Uttarakhand (B) Himachal Pradesh
 (C) Maharashtra (D) Uttar Pradesh
89. An hour during a day's session when questions/issues may be raised without prior notice in the Indian Parliament is called
 (A) Freedom Hour (B) Lunch Hour
 (C) Zero Hour (D) Party Hour
90. Who is the Chairman of NITI Aayog?
 (A) The Finance Minister
 (B) The Prime Minister
 (C) The Governor of the Reserve Bank of India
 (D) The Vice President
91. The Numaligarh Refinery is in which district of Assam?
 (A) Sivasagar (B) Jorhat
 (C) Golaghat (D) Dibrugarh
92. The international festival 'Kullu Dussehra' is celebrated in which State?
 (A) Himachal Pradesh (B) Uttarakhand
 (C) Uttar Pradesh (D) Haryana
93. The Bering Strait separates which two landmasses?
 (A) Australia and New Zealand
 (B) The USA and Russia
 (C) South Africa and Madagascar
 (D) Japan and China
94. Who wrote the lyrics of 'Alakananda', sung by Shankuraj Konwar?
 (A) Tonmoy Krypton
 (B) Sannidhya Bhuyan
 (C) Joi Barua
 (D) Maitrayee Patar
95. The real name of crime thriller writer Ranju Hazarika is
 (A) Satyanath Bora
 (B) Pabitra Kumar Deka
 (C) Hiren Gohain
 (D) Kumud Chandra Hazarika
96. Who wrote the children's book *Xanta-Xista Hrista-Pusta Mahadusto*?
 (A) Nabakanta Barua
 (B) Hiren Bhattacharyya
 (C) Bhabendra Nath Saikia
 (D) Arup Kumar Dutta
97. Kanchipuram Saree is produced in which State?
 (A) Kerala (B) Tamil Nadu
 (C) Karnataka (D) Telangana
98. Who among the following was a famous painter?
 (A) Vincent van Gogh
 (B) John Lennon
 (C) Bob Marley
 (D) Marlon Brando
99. In which sport do Tania Choudhury and Nayanmoni Saikia from Assam represent India?
 (A) Lawn Bowls (B) Badminton
 (C) Carrom (D) Judo
100. Identify the Badminton player.
 (A) Dipa Karmakar
 (B) Pullela Gopichand
 (C) Sania Mirza
 (D) Leander Paes
101. In which sport did India not win a medal at 2020 Tokyo Olympics?
 (A) Boxing (B) Weightlifting
 (C) Taekwondo (D) Wrestling

102. The Diamond League is an annual series of competitions in which area?
(A) Swimming (B) Badminton
(C) Gymnastics
(D) Track and Field Events
103. Identify the incorrectly matched pair.
(A) Stefan Edberg : Cricket
(B) Björn Borg : Lawn Tennis
(C) Tiger Woods : Golf
(D) Cristiano Ronaldo : Football
104. Where is the National War Memorial located?
(A) Srinagar (B) New Delhi
(C) Tawang (D) Amritsar
105. Which of the following is the Mission Basundhara of the Government of Assam related to?
(A) Fishery and livelihood
(B) Women empowerment
(C) Land records and land revenues
(D) Digital education
106. Which of the following organizations is not in the business of commercial vehicles?
(A) Larsen & Toubro
(B) Mahindra & Mahindra
(C) Force Motors
(D) Tata Motors
107. If the pH of a liquid is 5.0, then the liquid is
(A) alkaline in nature (B) neutral in nature
(C) liquid metal (D) acidic in nature
108. Who is the Vice President of India, as on 1st of January, 2024?
(A) Gulab Chand Kataria
(B) Ram Nath Kovind
(C) Jagdeep Dhankhar
(D) Rajnath Singh
109. Which of the following belongs to Class I category of lever?
(A) Scissor (B) Wheelbarrow
(C) Human arm (D) Stapler
110. The National Flag of which country has a white cross over red background?
(A) Brazil
(B) Switzerland
(C) The United States of America
(D) Japan
111. Which of the following is considered as the earliest compilation?
(A) Yajurveda (B) Atharvaveda
(C) Rigveda (D) Samaveda
112. Which of the following places was a part of the Indus Valley Civilization?
(A) *Machilipatnam* (B) *Babylon*
(C) *Mohenjo-daro* (D) *Byzantine*
113. Who among the following was involved in the Battle of Waterloo?
(A) Napoleon Bonaparte
(B) Czar Nicholas
(C) Adolf Hitler
(D) George Washington
114. Bhairabkunda is a trijunction of which of the following?
(A) Assam, Bhutan, China
(B) Assam, Bhutan, Arunachal Pradesh
(C) Assam, Bhutan, Sikkim
(D) Assam, Sikkim, Arunachal Pradesh
115. Which of the following is generally salty in taste?
(A) Snowflake (B) Rainwater
(C) Flowing river water (D) Seawater
116. Which of the following mountain ranges is in North-East India?
(A) Barail Range (B) Shivalik Range
(C) Satpura Range (D) Aravalli Range
117. Which of the following statements is incorrect?
(A) Lakshadweep is a Union Territory of India.
(B) Maldives is a Union Territory of India.

- (C) Andaman and Nicobar Islands is a Union Territory of India.
- (D) Puducherry is a Union Territory of India.
118. The Equator, the Tropic of Capricorn and the Tropic of Cancer pass through which continent?
- (A) Asia (B) Australia
(C) South America (D) Africa
119. Which of the following is an island State of the United States of America?
- (A) Madagascar (B) Canary Islands
(C) Hawaii (D) Greenland
120. Sudden burst into the open of hot water and vapour from deep underground is termed as
- (A) geyser (B) volcano
(C) tornado (D) tsunami
121. Which of the following is not a component of the Constitution of India?
- (A) The Directive Principles of State Policy
(B) The Directive Rights of the Centre
(C) The Fundamental Rights
(D) The Fundamental Duties
122. A continuous rise in the price level is called
- (A) stagflation (B) deflation
(C) hyperinflation (D) inflation
123. What does DAY stand for in the National Rural Livelihoods Mission (DAY-NRLM)?
- (A) District Availability Yojana
(B) Deendayal Antyodaya Yojana
(C) Deendayal Ayurvedic Yojana
(D) District Achievement Yojana
124. Which of the following novels was written by Padma Shri Rongbong Terang?
- (A) Mrityunjay
(B) Oximot Jar Herai Xeema
(C) Rongmilir Hanhi
(D) Miri Jiyori
125. Which of the following is not a Central Armed Police Force of India?
- (A) Indian Coast Guard (ICG)
(B) Sashastra Seema Bal (SSB)
(C) National Security Guard (NSG)
(D) Central Industrial Security Force (CISF)
126. What is the chemical symbol for silver?
- (A) Ag (B) Si
(C) Sv (D) Au
127. Who is the President of the USA, as on 1st of January, 2024?
- (A) Barack Obama (B) Donald Trump
(C) Joe Biden (D) Rishi Sunak
128. Which of the following is considered as the powerhouse of an animal cell?
- (A) Nucleus (B) Golgi apparatus
(C) Ribosome (D) Mitochondria
129. Which of the following countries does not have a seashore?
- (A) China (B) Afghanistan
(C) Myanmar (D) Iran
130. The world's largest island Greenland is a part of which of the following countries?
- (A) Denmark (B) Sweden
(C) Canada (D) Iceland
131. Consider the four numbers given here :
I. 376 II. 629 III. 921 IV. 397
If the digits of each number are arranged in ascending order, which new number would be the smallest?
- (A) III (B) II
(C) I (D) IV
132. Find the odd one out.
- (A) Sparrow (B) Crow
(C) Bat (D) Peacock
133. Pointing to Sarat in a photograph, Malini said, "His brother's father is the only son of my grandfather". How is Malini related to Sarat?
- (A) Aunt (B) Grandmother

- (C) Mother (D) Sister
134. If ROBOTICS is coded as OROBITSC, then PROJECTS would be coded as
 (A) ROPEJTSC (B) RPJOCEST
 (C) RPJOECST (D) ROJPCEST
135. In a zoo, the lion's cage is towards the East of tiger's cage. At the exact South of the lion's cage, there is bear's cage, which is towards the West of cheetah's cage. In which direction is the tiger's cage from the cheetah's cage?
 (A) South-East (B) North-West
 (C) South-West (D) East
136. At what speed should a car travel on a highway to reach a destination 12 km away in 15 minutes?
 (A) 64 kmph (B) 84 kmph
 (C) 48 kmph (D) 36 kmph
137. Which word would be the last in a standard English dictionary?
 (A) ADVERSE (B) ADVENT
 (C) ADVENTURE (D) ADVERTISE
138. Identify the correctly spelt word.
 (A) Moderator (B) Moredator
 (C) Modarator (D) Moderetor
139. Which of the following words cannot be made using the letters of MENDICANT?
 (A) MEDICAL (B) MEDIAN
 (C) DETAIN (D) ANCIENT
140. At the Youth Parliament, certain number of country representatives sit in a linear row and all are facing the audience. Only ten persons sit to the left of Estonia. Fiji sits eighth to the left of Estonia. Angola sits fourth to the right of Bahrain. Canada sits to the immediate left of Denmark, and Denmark is the third from the extreme right end of the row. The number of countries between Estonia and Denmark is same as Bahrain and Estonia. Only six countries sit between Angola and Canada.
- In total, how many countries are seated at the Youth Parliament?
 (A) 19 (B) 21
 (C) 32 (D) 17
141. Which option is similar to Pencil : Student : School?
 (A) Mouse : Eat : Biscuit
 (B) Computer : Officer : Bank
 (C) Pen : Writer : Book
 (D) Cash : Shopkeeper : Goods
142. If REAR = 42, TEAR = 44 and DEAR = 28, then which of the following sets is incorrectly paired?
 (A) PEAR = 40 (B) FEAR = 32
 (C) BEAR = 26 (D) GEAR = 31
143. Find the best option to fill in the last term:
 CIRCLE : GEOMETRY :: POETRY : ?
 (A) CHAPTER (B) BOOKS
 (C) PROSE (D) LANGUAGE
144. Identify the pair with the same relationship as Child : Vaccination.
 (A) Fever : Medicine (B) Food : Cooking
 (C) Plant : Pesticide (D) Animals : Food
145. Which of the following words would not fit correctly in the sentence?
 The person died of a ——— hit on his head.
 (A) lethal (B) fatal
 (C) deadly (D) subtle
146. What would be the correct sequence of the following words as per the standard English dictionary?
 1. Royal 2. Regal 3. Renal 4. Rebel
 (A) 1, 2, 3, 4 (B) 4, 3, 2, 1
 (C) 4, 2, 3, 1 (D) 4, 3, 1, 2
147. Select the appropriate number to correctly continue the sequence 27, 30, 37, 50, ?, 98.
 (A) 69 (B) 73
 (C) 81 (D) 91
148. Pallavi claims to be taller than Jyoti, but Smita who is taller than Pallavi knows that

- Pallavi is wrong. Which of the following can be said about their height?
- (A) Pallavi is definitely shorter than Jyoti
(B) Pallavi and Jyoti are of the same height
(C) Smita is the tallest of the three
(D) Cannot be determined
149. At a college function, Romola pointed out to an actor and said, "He is my mother-in-law's only son's nephew". How is the actor's mother related to Romola?
- (A) Aunt
(B) Daughter
(C) Niece
(D) Sister-in-law
150. Find the best option to fill in the third term :
Gravity : Newton :: ? : Copernicus
- (A) Blood circulation
(B) Heliocentric system
(C) Rocket
(D) Radioactivity



MCQs Answers : ADRE/SLRC

1 (B)	2 (A)	3 (C)	4 (A)	5 (B)	6 (D)	7 (B)	8 (C)	9 (C)	10 (B)
11 (B)	12 (C)	13 (C)	14 (A)	15 (C)	16 (D)	17 (D)	18 (D)	19 (C)	20 (C)
21 (C)	22 (A)	23 (B)	24 (C)	25 (D)	26 (B)	27 (D)	28 (A)	29 (C)	30 (D)
31 (C)	32 (B)	33 (D)	34 (A)	35 (B)	36 (A)	37 (C)	38 (D)	39 (B)	40 (B)
41 (C)	42 (A)	43 (C)	44 (D)	45 (C)	46 (C)	47 (A)	48 (D)	49 (B)	50 (C)
51 (D)	52 (A)	53 (B)	54 (B)	55 (D)	56 (C)	57 (A)	58 (B)	59 (D)	60 (B)
61 (C)	62 (B)	63 (D)	64 (A)	65 (A)	66 (C)	67 (D)	68 (B)	69 (D)	70 (C)
71 (B)	72 (C)	73 (D)	74 (A)	75 (B)	76 (D)	77 (C)	78 (A)	79 (D)	80 (C)
81 (B)	82 (A)	83 (A)	84 (B)	85 (C)	86 (D)	87 (A)	88 (D)	89 (C)	90 (B)
91 (C)	92 (A)	93 (B)	94 (D)	95 (D)	96 (C)	97 (B)	98 (A)	99 (A)	100 (B)
101 (C)	102 (D)	103 (A)	104 (B)	105 (C)	106 (A)	107 (D)	108 (C)	109 (A)	110 (B)
111 (C)	112 (C)	113 (A)	114 (B)	115 (D)	116 (A)	117 (B)	118 (D)	119 (C)	120 (A)
121 (B)	122 (D)	123 (B)	124 (C)	125 (A)	126 (A)	127 (C)	128 (D)	129 (B)	130 (A)
131 (A)	132 (C)	133 (D)	134 (B)	135 (B)	136 (C)	137 (D)	138 (A)	139 (A)	140 (A)
141 (B)	142 (B)	143 (D)	144 (C)	145 (D)	146 (C)	147 (A)	148 (D)	149 (D)	150 (B)

Previous Year SSC Question Paper

Combined Higher Secondary Level (CHSL)

Full Marks : 200

Time : 60 Minutes

Section	No. of Questions	Maximum Marks
1 English Languages	25	50
2 General Intelligence	25	50
3 Quantitative Aptitude	25	50
4 General Awareness	25	50

Section : English Language

1. Parts of the following sentence have been given as options. Select the option that contains an error.

She was fond of walking along the path besides the lake.

1. besides the lake 2. along the path
3. She was 4. fond of walking

2. Parts of the following sentence have been underlined and given as options. Select the option that contains an error.

Policeman came to my village and asked about a person who burgled a house last night.

1. policeman 2. a house
3. my village 4. a person

3. Select the option that will improve the given sentence by using the most appropriate verb.

Soorya walking to college every day.

1. Soorya is walking to college every day.
2. Soorya walked to college every day.
3. Soorya walk to college every day.
4. Soorya have walked to college every day.

4. The following sentence has been divided into parts. One of them may contain an error. Select the part that contains the error

from the given options. If you don't find any error mark 'No error' as your answer. Father took the newspaper / in his hand to / go through it once again.

1. in his hand to
2. Father took the newspaper
3. go through it once again
4. No error

Comprehension:

In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank.

What is literacy? It is the golden key that (1)_____ the gates to a whole new world. It heralds the dawn of a new (2)_____. But the media hype seems to give the impression that literacy simply means the ability to sign one's name, instead of putting thumb impression. Isn't that a very (3)_____, simplistic interpretation of the word?

Taking up this narrow meaning of the word, politicians proclaim that their states have achieved 80 or 90 per cent literacy or even (4)_____. But quite often, what happens is, once the training course is over, to produce (5)_____, the neo-literates soon lapse into illiteracy.

Sub Question No : 5

5. Select the most appropriate option to fill in blank no. 1.

- | | |
|-------------|-----------|
| 1. opens | 2. closes |
| 3. controls | 4. leads |

Comprehension:

In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank.

What is literacy? It is the golden key that (1)_____ the gates to a whole new world. It heralds the dawn of a new (2)_____. But the media hype seems to give the impression that literacy simply means the ability to sign one's name, instead of putting thumb impression. Isn't that a very (3)_____, simplistic interpretation of the word?

Taking up this narrow meaning of the word, politicians proclaim that their states have achieved 80 or 90 per cent literacy or even (4)_____. But quite often, what happens is, once the training course is over, to produce (5)_____, the neo-literates soon lapse into illiteracy.

Sub Question No : 6

6. Select the most appropriate option to fill in blank no. 2.

- | | |
|----------|-----------|
| 1. year | 2. day |
| 3. month | 4. season |

Comprehension :

In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank.

What is literacy? It is the golden key that (1)_____ the gates to a whole new world. It heralds the dawn of a new (2)_____. But the media hype seems to give the impression that literacy simply

means the ability to sign one's name, instead of putting thumb impression. Isn't that a very (3)_____, simplistic interpretation of the word?

Taking up this narrow meaning of the word, politicians proclaim that their states have achieved 80 or 90 per cent literacy or even (4)_____. But quite often, what happens is, once the training course is over, to produce (5)_____, the neo-literates soon lapse into illiteracy.

Sub Question No : 7

7. Select the most appropriate option to fill in blank no. 3.

- | | |
|------------|------------|
| 1. limited | 2. daunted |
| 3. wide | 4. small |

Comprehension :

In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank.

What is literacy? It is the golden key that (1)_____ the gates to a whole new world. It heralds the dawn of a new (2)_____. But the media hype seems to give the impression that literacy simply means the ability to sign one's name, instead of putting thumb impression. Isn't that a very (3)_____, simplistic interpretation of the word?

Taking up this narrow meaning of the word, politicians proclaim that their states have achieved 80 or 90 per cent literacy or even (4)_____. But quite often, what happens is, once the training course is over, to produce (5)_____, the neo-literates soon lapse into illiteracy.

Sub Question No : 8

8. Select the most appropriate option to fill in blank no. 4.

- | | |
|-----------|-------------|
| 1. better | 2. higher |
| 3. lower | 4. moderate |

Comprehension :

In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank.

What is literacy? It is the golden key that (1)_____ the gates to a whole new world. It heralds the dawn of a new (2)_____. But the media hype seems to give the impression that literacy simply means the ability to sign one's name, instead of putting thumb impression. Isn't that a very (3)_____, simplistic interpretation of the word?

Taking up this narrow meaning of the word, politicians proclaim that their states have achieved 80 or 90 per cent literacy or even (4)_____. But quite often, what happens is, once the training course is over, to produce (5)_____, the neo-literates soon lapse into illiteracy.

Sub Question No : 9

9. Select the most appropriate option to fill in blank no. 5.

- | | |
|--------------|--------------|
| 1. education | 2. literates |
| 3. beginners | 4. pupils |

10. Select the most appropriate synonym of the given word.

Magnificent

- | | |
|-----------|-------------|
| 1. Modest | 2. Regular |
| 3. Humble | 4. Splendid |

11. Select the most appropriate synonym of the given word.

Indigenous

- | | |
|---------------|---------------|
| 1. Aboriginal | 2. Artificial |
| 3. Tangible | 4. Literary |

12. Select the most appropriate spelling of the underlined word in the given sentence.

He lost all senisation in his legs through a cramp.

- | | |
|---------------|--------------|
| 1. syansation | 2. sensation |
| 3. sansation | 4. sensation |

13. The following sentence has been split into four segments. Identify the segment that contains a grammatical error.

When Serena / will arrive, / she will / call you.

- | | |
|-------------|----------------|
| 1. call you | 2. will arrive |
| 3. she will | 4. When Serena |

14. Select the most appropriate meaning of the given idiom.

A sting in the tail

1. An unexpected, typically unpleasant or problematic end to something
2. Something which seems bad at first but contains a pleasant part at the end
3. To initiate a situation that is very complicated or problematic
4. A situation in which a large group has to do something to satisfy a small group

15. Identify the INCORRECTLY spelt word in the following sentence.

To avoid indigeton, it is necessary to chew food properly.

- | | |
|-------------|--------------|
| 1. chew | 2. necessary |
| 3. properly | 4. indigeton |

16. Select the most appropriate option that can substitute the underlined words in the following sentence.

The interdisciplinary approach utilised in this study facilitates comprehensive understanding of the complex phenomenon under investigation.

1. facilitated a comprehensive understanding
2. will have facilitated a comprehensive understanding
3. utilises a comprehensive understanding
4. is facilitates a comprehensive understanding

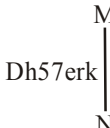
17. Select the most appropriate ANTONYM of the given word.

Abandon

- | | |
|------------|--------------|
| 1. Adopt | 2. Randomize |
| 3. Destroy | 4. Surrender |

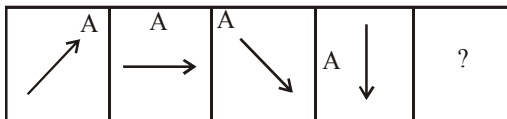
18. Select the most appropriate meaning of the given idiom.
Gift of the gab
 1. Witty 2. Humorous
 3. Talent for speaking 4. Talent for singing
19. Select the most appropriate collocation to fill in the blank.
 Ujjwal was imprisoned for _____ a crime.
 1. making 2. undertaking
 3. committing 4. involving
20. Identify the most appropriate ANTONYM of the given word.
 He worked alone as he did not want anyone to **hamper** his project.
 1. Care 2. Help
 3. Impede 4. Finish
21. Select the most appropriate ANTONYM of the underlined word in the given sentence.
 He is not **friendly** with him in the office.
 1. Revel 2. Hostile
 3. Gregarious 4. Intelligent
22. Select the most appropriate option that can substitute the underlined segment in the given sentence.
 No sooner did we reach at the party **that it began to rain.**
 1. it began to rain
 2. before it began to rain
 3. than it began to rain
 4. as it began to rain
23. Select the most appropriate option that can substitute the underlined segment in the given sentence. If there is no need to substitute it, select 'No substitution required'.
 I cannot use my office at the moment because **it being painted.**
 1. it is being painted
 2. it had been paint
 3. it has being painted
 4. No substitution required
24. Select the most appropriate synonym of 'amazement' to fill the blank.
 Leena was filled with _____ when she saw the diamond ring as her wedding gift.
 1. happiness
 2. measurement
 3. haughtiness
 4. astonishment
25. Select the most appropriate pair of words to fill in the blanks.
 Yesterday, he _____ pizza and _____ burgers in one go.
 1. eight; ate 2. ate; ate
 3. eight; eight 4. ate; eight

Section : General Intelligence

1. Select the correct mirror image given figure when the mirror is placed at MN shown below
- 
1. Dh57erk
 2. Dh57erk
 3. Dh57erk
 4. Dh57erk
2. What will come in the place of the question mark (?) in the following equation, if '+' and '-' are interchanged and '×' and '÷' are interchanged?
 $204 \times 6 - 6 \div 4 + 7 = ?$
 1. 41 2. 21
 3. 51 4. 31
3. 14 is related to 43 by certain logic. Following the same logic, 17 is related to 52. To which of the following is 19 related, following the same logic?

(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 – Operations on 13 such as adding/subtracting/multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

1. 57 2. 50
 3. 38 4. 58
4. JHDC is related to KGEB in a certain way based on the English alphabetical order. In the same way, QOKJ is related to RNLI. To which of the following is USON related, following the same logic?
1. VRPM 2. VSQM
 3. VRQM 4. VSPM
5. If 'A' stands for '+', 'B' stands for '×', 'C' stands for '+' and 'D' stands for '-', then the resultant of which of the following will be 100?
1. 15 C 9 D 810 A 9 B 55
 2. 15 D 9 B 810 A 9 C 55
 3. 15 B 9 D 810 A 9 C 55
 4. 15 A 9 D 810 B 9 C 55
6. Identify the figure given in the options which when put in place of the question mark (?) will logically complete the series?



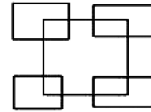
- 1.
- 2.
- 3.
- 4.

7. If 24 July 1999 was Saturday, then what was the day of the week on 28 July 2003?
1. Monday 2. Saturday
 3. Sunday 4. Tuesday
8. Select the option figure in which the given figure is embedded as its part (rotation is NOT allowed).

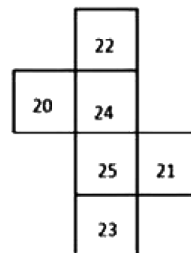


- 1.
- 2.
- 3.
- 4.

9. How many rectangles are there in the following figure?



1. 10 2. 7
 3. 9 4. 5
10. Which of the following numbers will replace the question mark (?) in the given series?
- 214 111 179 126 144 141 109 156 ?
1. 96 2. 89
 3. 61 4. 74
11. What would be the number on the opposite side of '23' if the given sheet is folded to form a cube?



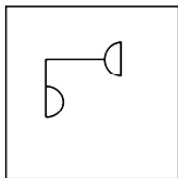
1. 24

2. 20

3. 21

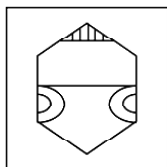
4. 22

12. Select the option in which the given figure X is embedded (rotation is NOT allowed).

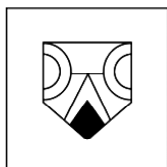


(X)

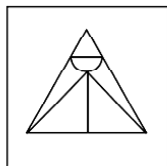
1.



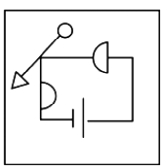
2.



3.



4.



13. Select the set in which the numbers are related in the same way as are the numbers of the following sets.

(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into their constituent digits. E.g. 13 – Operations on 13 such as adding/subtracting/multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

(12, 4, 16)

(27, 9, 36)

1. (39, 15, 52)

2. (39, 13, 54)

3. (37, 13, 52)

4. (39, 13, 52)

14. If 'A' stands for $\div$, 'B' stands for $\times$, 'C' stands for $+$ and 'D' stands for $-$, what will come in place of the question mark (?) in the following equation?

$$62 \text{ B } 2 \text{ D } 190 \text{ A } 5 \text{ C } 7 = ?$$

1. 90

2. 91

3. 93

4. 92

15. GJHK is related to IMKM in a certain way based on the English alphabetical order. In the same way, QTRU is related to SWUW. To which of the following is ILJM related, following the same logic?

1. KOMO

2. KNMN

3. KMON

4. KPNP

16. Select the word-pair that best represents a similar relationship to the one expressed in the pair of words given below.

(The words must be considered as meaningful English words and must not be related to each other based on the number of letters/number of consonants/vowels in the word.)

Leaf : Oak

1. Berry : Fruit

2. Bulb : Tulip

3. Needle : Pine

4. Tree : Forest

17. Select the correct option that when filled in the blanks in the same sequence will make the series logically complete.

QUAI_Q_YIL_U_ILQUU_L

1. LWQUI

2. LIQAU

3. LUQWI

4. LXIUQ

18. What should come in place of the question mark (?) in the given series?

66 77 99 132 176, ?

1. 232

2. 230

3. 233

4. 231

19. In a certain code language, 'BORN' is coded as '8234' and 'NORM' is coded as '6328'. How is 'M' coded in the given language?

1. 8

2. 2

3. 4

4. 6

20. In this question, three statements are given, followed by three conclusions numbered I, II and III. Assuming the statements to be true, even if they seem to be at variance

with commonly known facts, decide which of the conclusion(s) logically follows/follow from the statements.

Statements:

All ladders are chairs.

All chairs are tables.

No table is a stair.

Conclusions:

I. Some tables are ladders.

II. No chair is a stair.

III. Some ladders are stairs.

1. Only conclusion II follows.

2. Only conclusion III follows.

3. Both conclusions I and II follow.

4. Only conclusion I follows.

21. Four letter-clusters have been given, out of which three are alike in some manner and one is different. Select the lettercluster that is different.

(Note: The odd one out is not based on the number of consonants/vowels or their position in the letter cluster)

1. MNOL 2. AZCX
3. PKRI 4. PLRI

22. In a certain language,
A & B means A is the wife of B,
A ÷ B means A is the daughter of B,
A × B means A is the son of B,
A + B means A is the sister of B and
A @ B means A is the father of B
P & Q @ L + T & U @ V
Based on the above, how is Q related to V?
1. Sister 2. Mother
3. Father's mother 4. Mother's father
23. What should come in place of the question mark (?) in the given series?
33, 61, 117, 229, ?
1. 354 2. 543
3. 453 4. 435

24. In a certain code language, 'DZLV' is coded as 'HDJT' and 'CQYH' is coded as 'GUWF'. What is the code for 'MTBE' in the given code language?

1. YAYB 2. QZYB
3. OXZC 4. YZXB

25. A square sheet of paper is folded along the dotted line successively along the directions shown and is then punched in the end. How would the paper look when unfolded?

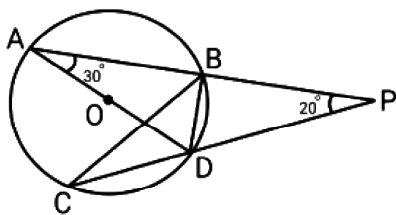


1. 2.
3. 4.

Section : Quantitative Aptitude

1. The sum of two numbers is 76. Three times the larger number is 46 more than four times the smaller one. Find the two numbers.
1. 35 and 41 2. 40 and 36
3. 44 and 32 4. 50 and 26
2. If the number 6p5157q is divisible by 88, then $p \times q = \underline{\hspace{2cm}}$, where p and q are single digit numbers.
1. 15 2. 18
3. 20 4. 12
3. A number increased by 20% gives 240. Find the number.
1. 240 2. 280
3. 200 4. 250
4. PBA and PDC are two secants. AD is the diameter of the circle with the centre at O.

$\angle A = 30^\circ$, $\angle P = 20^\circ$. Find the measure of $\angle DBC$.



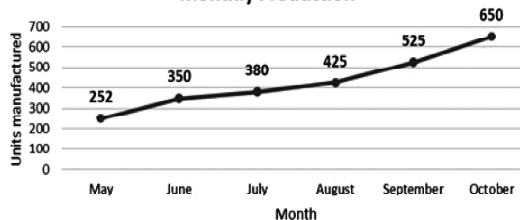
1. 50° 2. 30°
3. 45° 4. 40°

5. The value of $\left(\frac{\sin \theta}{1 + \cos \theta} + \frac{1 + \cos \theta}{\sin \theta} \right)$

$\left(\frac{1}{\tan \theta + \cot \theta} \right)$ is equal to :

1. $\tan \theta$ 2. 1
3. $2 \cos \theta$ 4. $2 \sin \theta$
6. By selling an article for ₹ 2.160. Prashant allows a 20% discount and earns 28% profit. If the article is sold without any discount, the profit will be :
1. 5% 2. 60%
3. 54% 4. 50%
7. The ratio of red to green sweets in a bag is 3 : 4. How many red sweets are there in the bag if the number of green sweets is 120?
1. 100 2. 80
3. 70 4. 90
8. A solid metallic sphere of radius 6 cm is melted and recast into spherical balls of radius 3 cm. The number of spherical balls thus obtained is:
1. 6 2. 10
3. 4 4. 8
9. The following line graph shows the units manufactured by a company in some months. In which month did the company report the highest growth (in %) in production as compared with the respective previous month's production?

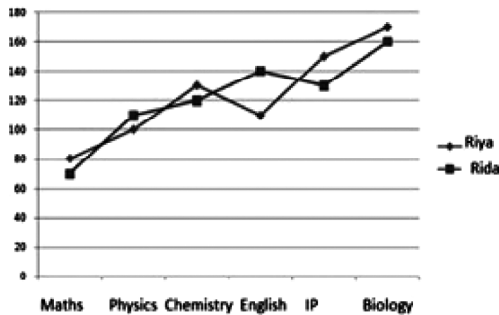
Monthly Production



1. July 2. October
3. June 4. September
10. What is the value of

$$\frac{\left[\frac{1}{4} \div \frac{1}{4} \times \frac{1}{4} \right] \times \frac{1}{4}}{\left[\frac{1}{8} + \frac{1}{8} \times \frac{1}{8} \right]} + \left(1 - \frac{4}{9} \right)?$$

1. 2 2. 0
3. 3 4. 1
11. PQR is a triangle. MN is a line segment intersecting PQ in M and PR in N such that MN $\parallel$ QR and divides "PQR into two parts, which are equal in area. What is the ratio of MQ to PQ?
1. $\sqrt{2} : (\sqrt{2} - 1)$ 2. $\sqrt{2} : 1$
3. $(\sqrt{2} - 1) : \sqrt{2}$ 4. $1 : \sqrt{2}$
12. Find the altitude (in cm) from the vertex Q to side PR of triangle PQR with side lengths PQ = 40 cm, PR = 40 cm and QR = 60 cm.
1. $25\sqrt{7}$ 2. $15\sqrt{7}$
3. $30\sqrt{7}$ 4. $20\sqrt{7}$
13. Study the given graph and answer the question that follows :
- The graph shows the marks obtained by Riya and Rida in six subjects in the CBSE 12th exam. The maximum marks in Maths. Physics and Chemistry are 140, and that in English, IP and Biology are 180.



What is the difference between the percentage of marks obtained by Riya and Rida in IP?

1. 11.11%
2. 19%
3. 20%
4. 31%

14. Nirmal completed the school project in 45 days. How many days will Amit take to complete the same work if he is 25% more efficient than Nirmal?

1. 36
2. 25
3. 38
4. 30

15. A police travelling at 65 km/h is chasing a thief who is 1200 m away from him and is travelling at 41 km/h. Find the time taken by the policeman to catch the thief.

1. 1 min
2. 3 min
3. 2 min
4. 4 min

16. A shopkeeper sells goods at 40% loss on cost price but uses 25% less weight. What is his percentage profit or loss?

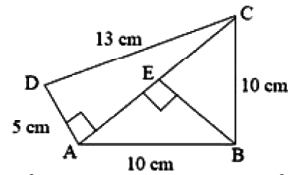
1. Profit, 20%
2. Loss, 10%
3. Loss, 20%
4. Profit, 10%

17. A laptop charger is sold for Rs.2,540 in cash or for a down payment of Rs.1,340 in cash together with Rs.1,205 to be paid after one month. Find the rate of interest charged in the instalment scheme.

1. 20% p.a.
2. 10% p.a.
3. 5% p.a.
4. 15% p.a.

18. What is the area of a quadrilateral ABCD, (shown below) in which sides AB and BC are equal, sides AD and CD are of lengths

5 cm and 13 cm, respectively, and side AD is perpendicular to the diagonal AC?



1. 75 cm^2
2. 78 cm^2
3. 82 cm^2
4. 80 cm^2

19. The given table represents the percentage marks of three students in three subjects. Study the table and answer the question

subject \ Student	Geography	History	Economics
Rohan	78	77	74
Sohan	84	80	82
Mohan	87	83	86

The average marks (to the nearest integer) obtained by the students in History and Economics (respectively) are:

1. 80 and 81
2. 81 and 80
3. 78 and 80
4. 80 and 78

20. The following table shows the loan disbursed by four banks (in Crores) over four years :

Banks	2016	2017	2018	2019
A	10	15	20	22
B	5	10	15	18
C	20	25	15	20
D	5	10	25	20

In which year total disbursement of loans of banks A and B is exactly equal to the total disbursement of loans of banks C and D?

1. 2017
2. 2019
3. 2016
4. 2018

21. The population of a village was 4,00,000. It increased by 20% in the first year and increased by 30% in the second year. Its population after two years is _____.

1. 6,25,000 2. 6,24,000
3. 5,40,000 4. 5,20,000
22. Find the surface area (in cm^2) of a cardboard box in the shape of a cuboid whose length is 60cm, breadth is half its length and height is one-third of its breadth.
1. 2700 2. 5400
3. 10800 4. 8100
23. The average age of Ruby and Soni is 40 years. The ratio of their ages is 11 : 5, respectively. What is the age (in years) of Soni?
1. 15 2. 30
3. 35 4. 25
24. By what percentage should a racer increase the speed to reduce the time by 25% to cover a fixed distance?
1. 31% 2. 41%
3. $37\frac{1}{3}\%$ 4. $33\frac{1}{3}\%$
25. From a circle of radius r units, the largest equilateral triangle is cut out. What is the length (in units) of the side of the triangle?
1. $\sqrt{2}r$ 2. $\frac{r}{\sqrt{3}}$
3. $\sqrt{3}r$ 4. $\frac{r}{\sqrt{2}}$
4. General Insurance Business (Nationalisation) Act, 1972
2. _____ was named as the new Shiv Sena president at the party national executive meeting in Mumbai in 2023.
1. Eknath Shinde
2. Narayan Rane
3. Rahul Ramesh Shewale
4. Aditya Uddhav Thackeray
3. The Parliament of India has passed the 86th Constitutional Amendment Act 2002, which establishes the basic rights of primary education for children between:
1. 7-16 Years
2. 5-11 years
3. 6-14 Years
4. 6-17 Years
4. Which Commission drew the boundary line between India and Pakistan?
1. Radcliffe Boundary Commission
2. Gandhi Irwin Pact
3. Hilton Young Commission
4. Bretton woods Commission
5. In which Gharana do singers perform the Khandhar Vani and Gauhar Vani?
1. Talwandi Gharana
2. Darbhanga Gharana
3. Dagari Gharana
4. Bettiah Gharana
6. Delhi ridge is the water divide between which of the following rivers?
1. Ganges and Yamuna 2. Indus and Mahi
3. Ganges and Indus 4. Ganges and Sind
7. The slide number can be added to each slide of the MS PowerPoint presentation from which of the following?
1. Page Formatting 2. View
3. Footer 4. Table Design
8. Which of the following statements most accurately describes the Cyclostomata group?

Section : General Awareness

1. On 11 August 2021, the General Insurance Business (Nationalisation) Amendment Bill, 2021 was passed by the Parliament and it amended the _____.
1. Life Insurance (Nationalisation) Act, 1975
2. General Business (Nationalisation) Act, 1970
3. Motor Insurance (Nationalisation) Act, 1980

1. They are ectothermic animals having mucus glands in the skin, and a three-chambered heart.
 2. They are warm-blooded, oviparous, bipedal, feathered, winged and toothless vertebrates.
 3. They are characterised by having an elongated eel-like body, circular mouth, slimy skin and are scaleless.
 4. Their skin is covered with scales/plates and their hearts have only two chambers.
9. What is/are the objective(s) of Fiscal Policy?
- (1) Boost growth
 - (2) Control inflation
 1. Neither 1 nor 2 2. Both 1 and 2
 3. Only 2 4. Only 1
10. The Fundamental Duties of Citizens were introduced by the 42nd Amendment in the year:
1. 1978 2. 1980
 3. 1976 4. 1988
11. In which year did Swami Vivekananda give his speech at the Chicago Parliament of Religions?
1. 1892 2. 1891
 3. 1890 4. 1893
12. Where did India win its last Olympic medal in men's hockey? (As of March, 2024).
1. Tokyo 2. Rio
 3. Munich 4. Mexico City
13. Which of the following statement(s) is / are true with respect to Supreme Court Observation in A.G. Perarivalan vs The State Of Tamil Nadu State?
1. It highlighted that the Governor's powers are qualified by the constitutional mandate, chiefly requiring them to act in aid and advice of the council of ministers
 2. The bench headed by justice L Nageswara Rao ordered the freedom of one of the convicts in the Rajiv Gandhi assassination case.
 3. The bench was of the opinion that there are three sources of power-Governor, Council of Ministers and the Constitution.
1. Only 1 2. Both 1 and 2
 3. Only 3 4. Both 2 and 3
14. Which of the following is NOT the colour of a warning card in kabaddi?
1. Black 2. Red
 3. Green 4. Yellow
15. Articles 344 (1) and 351 of the Constitution of India are related to the:
1. Third Schedule 2. Sixth Schedule
 3. Fifth Schedule 4. Eighth Schedule
16. Which Mughal ruler was responsible for the execution of Guru Tegh Bahadur in the year 1675?
1. Aurangzeb 2. Shahjahan
 3. Akbar 4. Jahangir
17. Match the states in column A with their official languages in column B.
- | Column A
(States) | Column B
(Official Languages) |
|----------------------|----------------------------------|
| 1. Andhra Pradesh | a. Malayalam |
| 2. Kerala | b. Telugu |
| 3. Karnataka | c. Konkani |
| 4. Goa | d. Kannada |
1. 1-b, 2-a, 3-c, 4-d 2. 1-b, 2-a, 3-d, 4-c
 3. 1-a, 2-b, 3-d, 4-c 4. 1-a, 2-b, 3-c, 4-d
18. Which of the following isotopes is used as a fuel in nuclear power plants for generating electricity?
1. Uranium- 235 2. Arsenic-74
 3. Carbon-14 4. Sodium-24
19. Most major sports awards are accompanied by a cash reward. Which of the following is the only national sports award that does NOT include a cash reward?

Practice Question Papers

1. Rashtriya Khel Protsahan Puruskar
 2. Major Dhyan Chand Khel Ratna
 3. Maulana Abul Kalam Azad Trophy
 4. Dronacharya Award
20. Which Indian festival is a festival of lights?
1. Holi
 2. Onam
 3. Bihu
 4. Diwali
21. The famous folk music of Rajasthan that was developed in royal courts is known as:
1. Dandiya
 2. Sohar
 3. Lavani
 4. Maand
22. The Howrah bridge was officially opened in the year _____.
1. 1943
 2. 1948
 3. 1930
 4. 1935
23. Which of the following statements about planet Saturn is true?
1. Satellites like Enceladus and Titan of Saturn are home to internal oceans, could possibly support life.
 2. Saturn is the fourth planet from the Sun and the largest planet in our solar system.
 3. Saturn's environment is conducive to life.
 4. Saturn is a massive ball made up mostly of nitrogen.
24. The Lucknow Gharana of Kathak was founded by _____, a devotee of the Bhakti movement who lived in southeast Uttar Pradesh.
1. Bhagwan Ram
 2. Ishwari Prasad
 3. Shyam Kumar
 4. Ram Kumar
25. In Microsoft Office, how is the font size determined?
1. Pixels
 2. Points
 3. Inches
 4. Centimetres



MCQs Answers : SSC

English Languages

1 (1)	2 (1)	3 (2)	4 (4)	5 (1)	6 (2)	7 (1)	8 (2)	9 (2)	10 (4)
11 (1)	12 (4)	13 (2)	14 (1)	15 (4)	16 (1)	17 (1)	18 (3)	19 (3)	20 (2)
21 (2)	22 (3)	23 (1)	24 (4)	25 (4)					

General Intelligence

1 (2)	2 (3)	3 (4)	4 (1)	5 (3)	6 (3)	7 (1)	8 (3)	9 (3)	10 (4)
11 (1)	12 (4)	13 (4)	14 (3)	15 (1)	16 (3)	17 (3)	18 (4)	19 (4)	20 (3)
21 (4)	22 (4)	23 (3)	24 (3)	25 (4)					

Quantitative Aptitude

1 (4)	2 (2)	3 (3)	4 (4)	5 (3)	6 (2)	7 (4)	8 (4)	9 (3)	10 (4)
11 (3)	12 (2)	13 (1)	14 (1)	15 (2)	16 (3)	17 (3)	18 (2)	19 (1)	20 (2)
21 (2)	22 (2)	23 (4)	24 (4)	25 (3)					

General Awareness

1 (4)	2 (1)	3 (3)	4 (1)	5 (2)	6 (3)	7 (3)	8 (3)	9 (2)	10 (3)
11 (4)	12 (1)	13 (2)	14 (1)	15 (4)	16 (1)	17 (2)	18 (1)	19 (1)	20 (4)
21 (4)	22 (1)	23 (1)	24 (2)	25 (2)					

Previous Year Common Law Admission Test (CLAT) Question Paper

Full Marks : 120

Time : 2 Hours

Section	No. of Questions	Maximum Marks
1 English Languages	24	24
2 Current Affairs Including General Knowledge	28	28
3 Legal Reasoning	32	32
4 Logical Reasoning	24	24
5 Quantitative Aptitude	12	12

English Language

- I. The right kind of education consists in understanding the child as he is without imposing upon him an ideal of what we think he should be. To enclose him in the framework of an ideal is to encourage him to conform, which breeds fear and produces in him a constant conflict between what he is and what he should be: and all inward conflicts have their outward manifestations in society. If the parent loves the child, he observes him, he studies his tendencies, his moods, and peculiarities. It is only when one feels no love for the child that one imposes upon him an ideal, for then one's ambitions are trying to fulfill themselves in him, wanting him to become this or that. If one loves, not the ideal but the child, then there is a possibility of helping him to understand himself as he is. Ideals are a convenient escape, and the teacher who follows them is incapable of understanding his students and dealing with them intelligently; for him, the future ideal, the what should be, is far more important

than the present child. The pursuit of an ideal excludes love, and without love no human problem can be solved. If the teacher is of the right kind, he will not depend on a method, but will study each individual pupil. In our relationship with children and young people, we are not dealing with mechanical devices that can be quickly repaired, but with living beings who are impressionable, volatile, sensitive, afraid, affectionate: and to deal with them, we have to have great understanding, the strength of patience and love. When we lack these, we look to quick and easy remedies and hope for marvellous and automatic results. If we are unaware, mechanical in our attitudes and actions, we fight shy of any demand upon us that is disturbing and that cannot be met by an automatic response, and this is one of our major difficulties in education.

(Extract with edits from "The right kind of Education" by J. Krishna Murti)

1. Which of the following currently reflects the intention of the author of this passage?
(A) The right kind of education for a child

- cannot be without love, care and understanding
- (B) True education should be governed by a tendency to conform a child to our ideals
- (C) The teacher should focus on how a child should be according to his/her methodology, hope, or expectation
- (D) Parents and teachers should work together collectively to guide a child on what she/he should do as per their ambitions
2. In light of the above passage, what will be the result of forcing a child to conform to the framework of an ideal?
- (A) It will make the child an ideal child
- (B) It will create confusion and fear in the child
- (C) The child will get into a conflict
- (D) Will discourage the child to conform to the ideal
3. According to the author, what should be the attitude of a right kind of teacher?
- (A) They should not empathise with the students
- (B) They should use modern and scientific methods of teaching
- (C) They should focus on studying each student individually
- (D) They should instill great ideals in the students
4. According to the passage, why do we look for quick and easy remedies and hope for marvellous and automatic results?
- (A) Because children are impressionable, volatile, sensitive, and affectionate
- (B) Because of major difficulties in education
- (C) Because we lack intelligence and skills
- (D) Because we lack understanding, patience and love
5. What does the passage highlight as the quality of a parent who really desires to understand his child?
- (A) They look at their child through the prism of an ideal
- (B) They observe and study the tendencies, moods, and peculiarities of the child
- (C) They love their child to become someone great as per their ambitions
- (D) They encourage the child to find out what she/he is and what she/he should be
6. What is the antonym for the word "volatile"?
- (A) Stable (B) Steady
- (C) Constant (D) All of the above
- II. Punctually at midday, he opened his bag and spread out his professional equipment, which consisted of a dozen cowrie shells, a square piece of cloth with obscure mystic charts on it, a notebook, and a bundle of palmyra writing. His forehead was dazzling with sacred ash and vermilion, and his eyes sparkled with a sharp, abnormal gleam which was really an outcome of a continual searching look for customers, but which his simple clients took to be a prophetic light and felt comforted. The power of his eyes was considerably enhanced by their position—placed as they were between the painted forehead and the dark whiskers which streamed down his cheeks: even a half-wit's eyes would sparkle in such a setting. People were attracted to him as bees are attracted to cosmos or dahlia stalks. He sat under the boughs of a spreading tamarind tree which flanked a path running through the town hall park. It was a remarkable place in many ways: a surging crowd was always moving up and

down this narrow road morning till night. A variety of trades and occupations was represented all along its way: medicine sellers, sellers of stolen hardware and junk, magicians, and, above all, an auctioneer of cheap cloth, who created enough din all day to attract the whole town. Next to him in vociferousness came a vendor of fried groundnut, who gave his ware a fancy name each day, calling it "Bombay Ice Cream" one day, and on the next "Delhi Almond," and on the third "Raja's Delicacy," and so on and so forth, and people flocked to him. A considerable portion of this crowd dallied before the astrologer too. The astrologer transacted his business by the light of a flare which crackled and smoked up above the groundnut heap nearby.

(Extracted with edits from "An Astrologer's Day" by R.K. Narayan)

7. Which among the following is the meaning of the expression 'vociferousness' ?
 - (A) Expressing opinions or feelings in a loud and confident way
 - (B) Words that are spoken or sung to have a magical effect
 - (C) Willing or prepared to do something
 - (D) To hang about aimlessly
8. When did the astrologer usually start his day's business?
 - (A) When people are attracted to him as bees
 - (B) When the surging crowd moves up and down the road
 - (C) Punctually at midday
 - (D) By the light of a flare
9. What was considered as a prophetic light by the simple clients of the astrologer?
 - (A) The resplendent forehead of the astrologer with sacred ash and vermillion
 - (B) The sparkling eyes of the astrologer with an abnormal gleam
 - (C) The dark whiskers which streamed down the cheeks of the astrologer
 - (D) The saffron coloured turban around the head of astrologer
10. Which among the following is the word for the phrase 'Bright and colourful in an impressive way' ?
 - (A) Mystic
 - (B) Flare
 - (C) Sparkle
 - (D) Dazzling
11. Which among the following is not a trade or occupation represented in the pathway running through the town hall park?
 - (A) Magicians
 - (B) Medicine sellers
 - (C) Auctioneers of cheap Bags
 - (D) Sellers of Stolen Hardware
12. Who among the following used names like "Bombay Ice Cream", "Delhi Almond," and "Raja's Delicacy" to attract the crowd?
 - (A) The sellers of cheap clothes
 - (B) The sellers of Medicine
 - (C) The ice cream seller
 - (D) The groundnut seller

III. From a very early age, I knew that when I grew up, I should be a writer. I had the lonely child's habit of making up stories and holding conversations with imaginary persons, and I think from the very start my literary ambitions were mixed up with the feeling of being isolated and undervalued. I knew that I had a facility with words and a power of facing unpleasant facts, and I felt that this created a sort of private world in which I could get my own back for my failure in everyday life. I wanted to write enormous naturalistic novels with unhappy endings, full of detailed descriptions and arresting similes, and also full of purple passages in which words were used partly

for the sake of their sound. I give all this background information because I do not think one can assess a writer's motives without knowing something of his early development.

His subject-matter will be determined by the age he lives in – at least this is true in tumultuous, revolutionary ages like our own – but before he ever begins to write he will have acquired an emotional attitude from which he will never completely escape. It is his job to discipline his temperament, but if he escapes from his early influences altogether, he will have killed his impulse to write. I think there are four great motives for writing, at any rate for writing prose. They are: (i) Sheer egoism: Desire to seem clever, to be talked about, to be remembered after death, to get your own back on grown-ups who snubbed you in childhood; (ii) Aesthetic enthusiasm: Desire to share an experience which one feels is valuable and ought not to be missed (iii) Historical impulse: Desire to see things as they are, to find out true facts and store them up for the use of posterity (iv) Political purpose : Desire to push the world in a certain direction, to alter other people's idea of the kind of society that they should strive after.

[Extracted with edits from George Orwell's "Why I Write"]

13. George Orwell's loneliness during childhood led to
 - (A) estrangement with his father
 - (B) unhappy days
 - (C) making up stories
 - (D) unpleasant incidents
14. Why does Orwell give background information?
 - (A) He had the lonely child's habits

(B) It is essential to know about motives of writers

(C) Because of his historic impulse

(D) Due to the aesthetic enthusiasm

15. If writer escapes from early impulses, he will ...

(A) lose his urge to write

(B) be unable to imagine creatively

(C) be able to converse with imaginary characters

(D) be able to influence others

16. For the author, aesthetic enthusiasm is an important motive for writing because it ...

(A) shapes the thoughts

(B) creates an artistic piece

(C) becomes invaluable

(D) non-utilitarian

17. The author strongly advocates the writers to:

(A) avoid any egoistic impression in their work

(B) be apolitical in their approach

(C) be contemporary in their treatment of their work

(D) None of the above

18. Which of the following is a synonym for the word "tumultuous"?

(A) Chaotic

(B) Turbulent

(C) Disorderly

(D) All of the above

- IV. Education is not the amount of information that is put into your brain and runs riot there, undigested, all your life. We must have life-building, man-making, character-making assimilation of ideas. ... If education were identical with information, the libraries are the sages in the world and encyclopaedias are the rishis. Getting by heart the thoughts of others in a foreign language and stuffing your brain with them and taking some University degree, you consider yourself educated. Is this education? What is the

goal of your education? Open your eyes and see what a piteous cry for food is rising in the land of Bharata, proverbial for its food. Will your education fulfill this want? We want that education by which character is formed, strength of mind is increased, the intellect is expanded and by which one can stand on one's own feet. What we need to study independent of foreign control, different branches of the knowledge that is our own, and with it the English language and Western science; we need technical education and all else that will develop industries so that men instead of seeking for service may earn enough to provide for themselves and save against a rainy day. The end of all education, all training, should be man-making. The end and aim of all training are to make the man grow. The training by which the current expression of will are brought under control and become fruitful, is called education. What our country now wants are muscles of iron and nerves of steel, gigantic wills, which nothing can resist, which can penetrate into the mysteries and secrets of the universe and will accomplish their purpose in any fashion, even if it meant going down to the bottom of the ocean, meeting death face to face.

There is only one method of attaining knowledge. It is by concentration. The very essence of education is concentration of mind. From the lowest to the highest man, all have to use the same method to attain knowledge. The chemist who works in the laboratory concentrates on elements to analyze them. Knowledge is acquired by concentration.

[Extracted with edits from "Education" by Swami Vivekananda]

19. Education, as described by the author means:
(A) Information (B) Library
(C) Degrees (D) None of the above
20. As per the author, the aim of education should be:
(A) to help a person build his/her character
(B) to help a person earn his/her livelihood
(C) to help a person develop his/her intellect
(D) All of the above
21. According to the author the country wants:
(A) massive will power
(B) spirit of philanthropy
(C) iron and steel industries
(D) All of the above
22. According to the author, we need to study:
(A) English Language
(B) Technical Education
(C) Western Science
(D) All of the above
23. According to the author, which among the following is key to attain knowledge?
(A) University Degrees
(B) Library
(C) Concentration of mind
(D) Hard work and sports training
24. Which of the following words is related to the word "assimilation"?
(A) Integration (B) Adjustment
(C) Acclimatization (D) All of the above

Current Affairs Including General Knowledge

- V. During the First World War, Indian merchants and industrialists wanted protection against imports of foreign goods, and a rupee-sterling foreign exchange ratio that would discourage imports. To organise business interests, they formed the Indian Industrial and Commercial Congress in 1920 and the Federation of the Indian

Chamber of Commerce and Industries (FICCI) in 1927. The industrialists attacked colonial control over the Indian economy, and supported the Civil Disobedience Movement when it was first launched. They gave financial assistance and refused to buy or sell imported goods. After the failure of the Round Table Conference, business groups were no longer uniformly enthusiastic. They were apprehensive of the spread of militant activities, and worried about prolonged disruption of business, as well as of the growing influence of socialism amongst the younger members of the Congress.

The industrial working classes did not participate in the Civil Disobedience Movement in large numbers, except in the Nagpur region. As the industrialists came closer to the Congress, workers stayed aloof. But in spite of that, some workers did participate in the Civil Disobedience Movement, selectively adopting some of the ideas of the Gandhian programme, like boycott of foreign goods, as part of their own movements against low wages and poor working conditions. There were strikes by railway workers in 1930 and dockworkers in 1932. In 1930, thousands of workers in Chotanagpur tin mines wore Gandhi caps and participated in protest rallies and boycott campaigns. But the Congress was reluctant to include workers' demands as part of its programme of struggle. It felt that this would alienate industrialists and divide the anti-imperial forces.

Another important feature of the Civil Disobedience Movement was the large-scale participation of women. During Gandhiji's salt march, thousands of women

came out of their homes to listen to him. They participated in protest marches, manufactured salt, and picketed foreign cloth and liquor shops. Many went to jail.

[Excerpt from Chapter II - Nationalism in India, India and the Contemporary World, NCERT]

25. Which event in Indian history marked the beginning of the Civil Disobedience Movement?
 - (A) Launch of Non-Cooperation Movement
 - (B) Commencing of Dandi March
 - (C) Signing of Gandhi-Irwin Pact
 - (D) Withdrawal of Non-Cooperation Movement
26. Which of the following is true in the context of civil disobedience movement?
 - (A) The Indian industrialist preferred partnership with MNCs
 - (B) The Indian industrialist were concerned of disruption of business
 - (C) The working class rejected the civil disobedience movement
 - (D) The Round Table Conference was a partial success
27. Which of the following was the predicament for Congress?
 - (A) Danger of division of opposition to the British Government
 - (B) Loss of faith by marginalised sections in Congress
 - (C) Falling value of Rupee against Sterling
 - (D) None of the above
28. Which of the following statements is correct with reference to the Civil Disobedience Movement?
 - (A) It encouraged militancy among workers
 - (B) Breaking of the salt law, manufacturing salt, and demonstrating it in front of government salt factories

- (C) It urged the industrialists to accept socialism
- (D) All of the above
29. Which among the following mass movement was supported by the Indian industrialists?
- (A) Home Rule Movement
- (B) Civil Disobedience Movement
- (C) Non-Cooperation Movement
- (D) Quit India Movement
30. Which of the following can be considered as major outcome of civil disobedience movement?
- (A) A partial support of working class
- (B) Galvanising women in political sphere
- (C) Socialistic influence among the Congress cadre
- (D) All of the above
- VI. The “Nari Shakti Vandan Adhiniyam”, 2023 Act received near-unanimous support in both the Lok Sabha and the Rajya Sabha. The legislation mandates the reservation of one-third of all seats in the Lok Sabha, state legislative assemblies, and Delhi (as a union territory with an elected assembly) for women. This linking of the implementation of the Act to the implementing of two long-term exercises of census and delimitation, makes little sense to many, and sounds quite like empowerment delayed for now. In a 2012 article ‘Holding Up Half the Sky: Reservations for Women in India’, Rudolf C Heredia breaks down the common misconceptions that cloud our understanding of women’s political participation- “When women do attain a national leadership role it is often because they have inherited the mantle from their fathers or husbands, rather than as persons in their own right and are then projected as matriarchs, part of the joint family, complementary to the patriarchy rather than a challenge to it.”
- In ‘Equality versus Empowerment: Women in Indian Legislature’, 2023, Soumya Bhowmick makes the case for going a step beyond quotas, and to turn our attention to the complexities that shape women’s agency in the country. This, he argues, would require a bottoms-up approach, rather than merely handing out reservations in a top-down manner. “In a country like India with a considerably large heterogeneous population, the dissemination of legislative power would be insufficient to protect the interests of minority groups such as women, Scheduled Castes, and Scheduled Tribes.” He concludes that “implementing the idea of reservation for women would bring about descriptive representation, but its transformation into substantive representation would depend on the change in the attitudes of the people.”
- While the reservation of one-third of seats for women belonging to the scheduled castes and tribes under the amendment to article 330a and 332 of the constitution is a welcome step, it remains to be seen whether it fully acknowledges the complex interplay of hierarchies, socio-political relationships which also affect the extent and nature of complications that surround effective realisation of women’s politics for Indian politics to emerge as a truly emancipatory space.
31. The Nari Shakti Vandan Adhiniyam 2023:
- (A) Will come to force from Jan 2025
- (B) Will come to force after all the States and UTs approve it
- (C) Will come to force after Census
- (D) None of the above

32. As per Rudolf Heredia women's political leadership depends upon :
- (A) Mentorship of spouse's political affiliations
 - (B) Parental guidance
 - (C) Property inheritance
 - (D) None of the above
33. According to Soumya Bhowmick the quotas for women should:
- (A) Require a top down model
 - (B) Fulfill a descriptive representation
 - (C) Transform to substantive representation
 - (D) To be implemented homogeneously
34. The amendment to the Art. 330 (a) & 332 aims to:
- (A) Appoint Rajya Sabha members based on cultural diversity
 - (B) Quota for women Governors
 - (C) Women sportspersons
 - (D) None of the above

VII. In keeping with the slogan for this year's Olympics, "Games Wide Open," the opening ceremony took place outside a stadium setting by the river for the first time. In many respects, the Paris Games turned out to be one of the most elaborate cultural rituals since Covid swept across the world beginning in late 2019. Health restrictions forced the organizers of Tokyo 2020 and Beijing 2022 to sharply limit the scale of the festivities, with events largely closed to the public. Paris 2024, powered in part by pent-up demand for communal experiences, symbolized an international post-pandemic vibe shift.

The International Olympic Committee and French officials managed strict security measures in place. Yet the recent history of violence in France — including the 2015 terror attack in Paris that left 138 people dead and at least 416 injured — stalked public consciousness prior to the games.

The geopolitical backdrop for the Paris Games was no less troubling. The war between Israel and Hamas which had crossed the six-month mark, raised fears of a protracted conflict and wider regional instability. The devastation in the Gaza Strip has provoked international outrage, isolating Israel on the global stage. Meanwhile, Russia continues to gain ground in its military offensive against Ukraine as some Western nations worry about the rise of authoritarianism. These international crises raised serious concerns that could come into play during the Games in the form of protests and other political demonstrations. Nevertheless, Olympics organizers put up a show that stunned the throngs assembled on the boulevards of Paris, not to mention the millions of people who watched the Games unfold on their televisions and mobile devices. At the Paris 2024 Olympics, India secured a total of six medals: one silver and five bronze which was one down from the highest haul of medals from the previous Olympics. Neeraj Chopra earned a silver in men's javelin with an 89.45 throw, narrowly missing gold to Pakistan's Arshad Nadeem. Shooter Manu Bhaker made history by clinching bronze in the women's 10'm air pistol, becoming the first Indian woman to win a medal in Olympic shooting. The men's hockey team achieved a second consecutive bronze, defeating Spain 2-1, with captain Harmanpreet Singh scoring both goals.

(Extracted, with edits and revision, from "The Olympics are nearly here. For a weary world, they can't come soon enough", NBCNEWS)

35. India won a back-to-back Olympics hockey medal at:

- (A) Beijing and Paris
 (B) Rio and Beijing
 (C) Beijing and Tokyo
 (D) None of the above
36. According to the passage, what is the peculiarity of the Paris Olympics, 2024?
 (A) It symbolized an international post-pandemic vibe shift
 (B) The opening ceremony took place outside a stadium
 (C) It is one of the most elaborate cultural rituals since Covid
 (D) All of the above
37. Which of the following incidents support the argument that “the geopolitical backdrop for the Paris Games is no less troubling”?
 (A) Israel-Hamas conflict
 (B) The immigrant influx in to Europe
 (C) Political stability of French government
 (D) All of the above
38. Which one of the following is true?
 (A) Tokyo Olympics was better than Beijing Olympics
 (B) Spectators thronged for a post Covid sporting experience
 (C) Olympic games are unaffected by conflicts in a region
 (D) All of the above
39. The highest Olympic medal tally for India was at:
 (A) Beijing (B) Rio
 (C) London (D) Tokyo
40. Where is the opening ceremony of the Paris Olympics, 2024, held?
 (A) Seine River (B) Versailles Palace
 (C) Eiffel Tower (D) Arc de Triomphe
- VIII. On the recommendation of Parliament, the President of India effectively abrogated Article 370 of the Indian Constitution and gave assent to the Jammu and Kashmir Reorganization Act, 2019. The former state of Jammu & Kashmir has been reorganized as the new Union Territory of Jammu and Kashmir and the new Union Territory of Ladakh on 31st October 2019.
- The new Union Territory of Ladakh consists of two districts of Kargil and Leh. The rest of the former State of Jammu and Kashmir is in the new Union Territory of Jammu and Kashmir
- By 2019, the state government of former Jammu and Kashmir had reorganized the areas of these 14 districts into 28 districts. The names of the new districts are as follows – Kupwara, Bandipur, Ganderbal, Srinagar, Budgam, Pulwama, Shupian, Kulgam, Rajouri, Ramban, Doda, Kishtivar, Samba and Kargil.
- Out of these, Kargil district was carved out from the area of Leh and Ladakh district. The Leh district of the new Union Territory of Ladakh has been defined in the Jammu and Kashmir Reorganization (Removal of Difficulties) Second Order, 2019, issued by the President of India, to include the areas of the districts of Gilgit, Gilgit Wazarat, Chilhas and Tribal Territory of 1947, in addition to the remaining areas of Leh and Ladakh districts of 1947, after carving out the Kargil District.
- [Extracted from the article of Press Information Bureau, published by the Union Home Ministry on 2nd November 2019]
41. Which of the following statements regarding Article 370 of the Constitution of India is correct?
 (A) It gave special status to the erstwhile state of Jammu and Kashmir
 (B) It created a special tribunal for the state of Jammu and Kashmir on certain occasions

- (C) It introduced Goods and Services Tax in Jammu and Kashmir
- (D) It confers special jurisdiction on the Supreme Court on matters coming from Jammu & Kashmir
42. The Jammu and Kashmir Reorganisation Act, 2019, divided the erstwhile State of Jammu and Kashmir into which of the following?
- (A) 2 States
- (B) 1 State and 1 Union Territory
- (C) 2 Union Territories
- (D) 1 State and 2 Union Territories
43. Which of the following Union Territories of India has a legislative assembly?
- (A) Andaman and Nicobar Islands
- (B) Jammu and Kashmir
- (C) Daman and Diu
- (D) Lakshadweep
44. How many States and Union Territories are present in India?
- (A) 28 states and 8 Union territories
- (B) 27 states and 8 Union territories
- (C) 28 states and 7 Union territories
- (D) 27 states and 7 Union territories
45. Which among the following is the capital city of the Union Territory of Ladakh?
- (A) Leh (B) Changtang
- (C) Dras (D) Nubra
46. Which of the following is false?
- (A) Kargil was formerly a union territory
- (B) Ladakh is administered by J&K assembly
- (C) Fifteen new districts were formed to be part of J & K in 2019
- (D) All of the above
- IX. Chinese President Xi Jinping and Indian Prime Minister Narendra Modi used a BRICS summit in Russia recently to showcase ambitions for a more harmonious relationship between the world's two most populous countries after years of animosity.

The meeting between Xi and Modi, who have not held formal talks for five years, was one highlight of a summit. BRICS also gave an opportunity to the Russian President Vladimir Putin for showcasing that the West had failed to isolate Russia over the Ukraine war.

A final communique listed a number of projects aimed at facilitating trade between BRICS nations - including an alternative payment system to the dollar - but did not include details or timelines.

Just two days after New Delhi announced that it had reached a deal with Beijing to resolve a four-year military stand-off on their disputed Himalayan frontier, Xi told Modi that they should enhance communication and cooperation and effectively manage differences.

BRICS - an idea thought up inside Goldman Sachs two decades ago to describe the growing economic clout of China and other major emerging markets - is now a group that accounts for 45% of the world's population and 35% of the global economy. Former Goldman Sachs economist Jim O'Neill, who coined the BRIC term in 2001, told Reuters that he had little optimism for the BRICS club as long as China and India remained so divided.

"It seems to me basically to be a symbolic annual gathering where important emerging countries, particularly noisy ones like Russia, but also China, can basically get together and highlight how good it is to be part of something that doesn't involve the U.S. and that global governance isn't good enough,"

The 43-page final communique from the summit ranged from geopolitics and narcotics to artificial intelligence and even

the preservation of Big Cats, but lacked detail on some major issues. It mentioned Ukraine just once.

(Excerpts from “Putin scores a BRICS win with rare Xi and Modi show of harmony”
By Vladimir Soldatkin and Guy Faulconbridge, Reuters, October 23, 2024)

47. The 16th BRICS achieved the following:
(A) Launch of BRICS currency
(B) De scalation of Russian-Ukrainian conflict
(C) Diplomatic dialogue between India and China
(D) All of the above
48. What does the letter “S” in BRICS stand for?
(A) Saudi Arabia (B) Singapore
(C) South America (D) South Africa
49. The initiative of Big Cats Alliance refers to:
(A) Lions, Tigers and Jaguar
(B) Tigers, Jaguar and Leopard
(C) Lions, Cheetah and Snow Leopard
(D) All of the above
50. Which statement reflects as a critique from the Western Economists ?
(A) BRICS currency cannot displace Dollars
(B) Asian economies will not impact western economy
(C) Indo-China conflicts will impact progress of BRICS
(D) All of the above
51. The emergence of BRICS signals:
(A) Asian consolidation of economic power
(B) Diminishing European dominance
(C) Revival of Nonaligned movement
(D) A geo-politics without US dominance
52. Which one of the below is an outcome of 16th BRICS meeting?
(A) Proposal to end Russia-Ukraine war
(B) To expand BRICS by including

Scandinavian countries

- (C) To recognise China’s claim of Taiwan
- (D) Reducing tension between India and China

Legal Reasoning

- X. The Supreme Court of India declared that the right to privacy is a fundamental right and that the right to informational privacy is part of this right. Subsequently, the Parliament of India enacted a new law relating to digital personal data protection. The law applies to Indian residents and businesses collecting the data of Indian residents. It also applies to non-citizens living in India whose data processing is “in connection with any activity related to the offering of goods or services” that happens outside India. The law allows personal data to be processed for any lawful purpose. If the personal data is sensitive, then additional safeguards are to be observed. The entity processing data can do so either by taking the concerned individual’s consent or for “legitimate uses”- which include situations where an individual has voluntarily provided personal data for a specified purpose. The law requires that an individual’s consent must be “free, specific, informed, unconditional and unambiguous with a clear affirmative action” and for a specific purpose. The data collected has to be limited to that necessary for the specified purpose. A clear notice containing these details has to be provided to consumers, including the rights of the concerned individual and the grievance redressal mechanism. Individuals have the right to withdraw consent if consent is the ground on which data is being processed. The law also creates rights and

obligations for individuals. These include the right to get a summary of all the collected data and to know the identities of all other entities/organisations with whom the personal data has been shared, along with a description of the data shared. Individuals also have the right to correction, completion, updating, and erasure of their data. Besides, they have a right to obtain redressal for their grievances and a right to nominate persons who will receive their data.

[Excerpts from Anirudh Burman, “Understanding India’s New Data Protection Law”, CARNEGIE INDIA, October 03, 2023]

53. An Indian company collects personal data from its users to provide personalized services. The company intends to share this data with a third-party vendor for targeted advertisements. Under the digital personal data protection law in India, what must the company do before sharing the data?
 - (A) Obtain explicit consent from the users
 - (B) Share the data by informing the users, as it is for business purposes
 - (C) Encrypt the data and share it with the third-party vendor
 - (D) Inform the third-party vendor that the data is sensitive
54. A social media platform processes user data based on the consent given during account creation. A user now wishes to withdraw consent to process their data. Under the digital personal data protection law in India, what must the platform do?
 - (A) Refuse to accept the withdrawal request since consent was already given
 - (B) Comply with the legal requirements and stop processing the data
 - (C) Continue processing the data but notify the user
 - (D) Allow withdrawal only after 30 days
55. A financial institution collects biometric data from its clients for verification purposes. If the clients wish to know what data has been collected, under the digital personal data protection law in India, what right allows them to request this information?
 - (A) Right to Data Portability
 - (B) Right to Correction
 - (C) Right to Access
 - (D) Right to Be Forgotten
56. A startup provides a health-tracking app that collects sensitive health data from users. Under the digital personal data protection law in India, what additional precautions must the startup take compared to regular personal data?
 - (A) No additional measures are needed
 - (B) Ensure explicit consent and adopt higher security standards
 - (C) Store the data only with the government agencies
 - (D) Store the data only with the hospitals and other health care institutions
57. As per the passage, what are the rights included under the digital data protection law of India?
 1. Right to get the summary of collected data
 2. Right to know to whom the data has been shared
 3. Right to correct and update the data
 4. Right to get the data removed from the database
 5. Right to decide on who can receive their data
 6. Right to get redressal of grievances
 - (A) 1, 2, 5 and 6
 - (B) 1, 3, 4 and 6
 - (C) 1, 3, 5 and 6
 - (D) 1, 2, 3, 4, 5 and 6

XI. The Public Examinations (Prevention of Unfair Means) Act, 2024 that has provision for up to five years’ imprisonment and a

fine of up to ₹ 1 crore for malpractices and organized cheating in government recruitment exams was notified by the Union government and came into effect from June 21, 2024. The Bill had received assent from the President of India on the 13th February 2024. The Public Examinations (Prevention of Unfair Means) Act, 2024 mentions punishments for “leakage of question paper or answer key”, “directly or indirectly assisting the candidate in any manner unauthorisedly in the public examination” and “tampering with the computer network or a computer resource or a computer system” as offences done by a person, group of persons or institutions. Besides these, “creation of fake website to cheat or for monetary gain”, “conduct of fake examination, issuance of fake admit cards or offer letters to cheat or for monetary gain” and “manipulation in seating arrangements, allocation of dates and shifts for the candidates to facilitate adopting unfair means in examinations” are also among the offences punishable under the law.

“Any person or persons resorting to unfair means and offences under this Act shall be punished with imprisonment for a term not less than three years but which may extend to five years and with fine up to ₹ 10 lakh,” said the Act. A service provider, engaged by the public examination authority for conduct of examinations, shall also be liable to be punished with imposition of a fine up to ₹ 1 crore “and proportionate cost of examination shall also be recovered” from it, according to the Act. Such service providers shall also be barred from being assigned with any responsibility for the conduct of any public examination for a period of four years.

[Extracted, with edits and revisions from “Act that Punishes Organized Cheating in Government Exams Comes into Effect” published in The Hindu dated 22-06-2024]

58. A Bill becomes an Act only when.....
 - (A) Both the houses of the Parliament pass with simple majority
 - (B) Both the houses of the Parliament pass with absolute majority
 - (C) When the Prime Minister of India gives his approval
 - (D) When the President of India gives the Assent
59. A service provider, engaged by the public examination authority for conduct of examinations, indirectly helped his family member by giving hint on questions that were supposed to be asked in the examination shall
 - (A) be liable to be punished with imposition of a fine of ` 1 crore
 - (B) be liable to be punished with imposition of a fine upto ` 1 crore
 - (C) be liable to be punished with imposition of a fine upto ` 1 crore and the entire cost of conduct of the examination
 - (D) None of the above
60. An invigilator of a public examination found guilty of manipulating the seating arrangement to favour his relative writing the public examination is punished by the Court. Which among the following is the appropriate punishment as per the punishment mentioned in the above passage?
 - (A) Imprisonment for 1 year and fine of 1 lakh
 - (B) Imprisonment for 2 years and a fine of 10 lakhs
 - (C) Imprisonment for 3 years and fine of 15 lakhs

- (D) Imprisonment for 4 years and fine of 5 lakhs
61. Identify which of the following is not an unfair means relating to the conduct of a public examination?
- (A) Coaching Centre conducting mock tests for students
- (B) The Coaching Centre offering help to its students during the examination
- (C) The Centre Superintendent of the public examination on the request of the Coaching Centre provides seating arrangement of all its students in one hall
- (D) The Centre Superintendent of the public examination indirectly assisting the candidate
62. Who among the following is not a service provider in the context of a public examination?
- (A) Coaching Centre which prepares students for passing in the public examination
- (B) Printing Press where the question paper of the public examination is printed
- (C) The Software Company that manages the website of the public examination
- (D) The Company which scans the OMR sheets of the public examination

XII. The 42nd Constitutional Amendment Act 1976 introduced the concept of environmental protection in an explicit manner into the Constitution through introduction of Article 48-A and Article 51-A (g). In many judgments, the Supreme Court ruled that both the state and its residents have a fundamental duty to preserve and protect their natural resources. The recent judgment obliquely makes way for an enforceable right, and a

potential obligation on the state unless the same is overturned by an Act of Parliament. India is signatory of various international environmental conservation treaties under which India has the binding commitment to reduce carbon emission. During the COP 21, India signed Paris Agreement along with 196 countries, under which universally binding agreement was made to limit greenhouse gas emission to levels that would prevent global temperatures from increasing to more than 1.5 degree Celsius before the industrial revolution. India has committed to generating 50% of its energy through renewable resources and will generate 500 GW of energy from non-fossil fuels by 2030, reducing the carbon emission by 1 billion ton. Additionally, India has committed to achieve net zero carbon emission target by 2070.

Supreme Court's March 21, 2024 verdict builds on the bulwark of jurisprudence in place since 1986, and, through various other judgments, the Supreme Court has recognised the right to clean environment along with right to clean air, water and soil free from pollution which is absolutely necessary for the enjoyment of life. Any disturbance with these basic elements of environment would amount to violation of Article 21. It also establishes duty of the state to maintain ecological balance and hygienic environment.

Although right to clean environment has existed, by recognizing the right against climate change it shall compel the states to prioritize environmental protection and sustainable development.

(Extracted, with edits and revision, from "Supreme Court of India bolts Right to Life with climate justice", The Economic Times, 06-05-2024)

63. In which among the following, changes were introduced for environmental protection through the Constitution of India (42nd Amendment) Act?
1. Fundamental Rights
 2. Fundamental Duties
 3. Directive Principles of State Policy
- (A) 1 & 2 only (B) 2 & 3 only
(C) 1 & 3 only (D) 1, 2 & 3
64. The nature of binding commitment of India to reduce carbon emission through the signing of various international environmental conservation treaties especially the Paris Agreement may be described as:
- (A) The signatory shall take adequate measures to reduce carbon emission
 - (B) The signatory may take adequate measures to reduce carbon emission
 - (C) The signatory should explore the possibility to reduce carbon emission
 - (D) The signatory may formulate necessary policies to reduce carbon emission
65. Under Article 51-A(g) of the Indian Constitution, it is specifically mentioned that citizens shall have the duty to protect and improve the natural environment that includes:
- (A) Rivers & Lakes
 - (B) Forests & Wildlife
 - (C) All living Creatures
 - (D) Only (A) and (B)
66. As per the aforementioned passage and decision of the Supreme Court:
- (A) The fundamental duty to preserve and protect natural resources is upon the State only
 - (B) Citizens alone have the fundamental duty to preserve and protect natural resources
 - (C) Both the state and citizens have the duty to preserve and protect natural resources
 - (D) State's duty to maintain ecological balance and citizens right against climate change
67. According to the passage, what makes India committed to reduce carbon emission?
- (A) Because of being a signatory of international environmental conservation treaties
 - (B) Because of the Supreme Court verdicts which obliquely make way for an enforceable right
 - (C) Because of the policy decisions of Government
 - (D) Because of the Constitution of India (42nd Amendment) Act
68. The passage mentions that "any disturbance with these basic elements of environment would amount to violation of Article 21". Article 21 of the Constitution deals with:
- (A) Right to equality
 - (B) Right against exploitation
 - (C) Right to freedom of residence
 - (D) Right to life and personal liberty
- XIII. The Contract Act 1872 deals with contract law in India, its rights, duties, and exceptions arising out of it. Section 2(h) of the Act gives us the definition of a contract, which is simply an agreement enforceable by law. To understand the difference between void agreements and voidable contracts it is important to talk about sections 2(h), 2(a), 2(i), 2(d), 14, 16 (3) and 15, 24-28 of the Indian Contract Act. Void agreements, are fundamentally invalid making them unenforceable by default. These agreements cannot be fulfilled as

they consist of illegal elements and they cannot be enforced even after subjecting it to both parties. However, in the case of voidable contract, the agreement is initially enforceable but it is later on denied at the option of either of the parties due to various reasons.

Unless rejected by a party, this contract will remain valid and enforceable. The party who is at the disadvantage due to any circumstance applicable to the contract has the ability to render the agreement void. A void agreement is void ab initio making it impossible to rectify any defects in it while voidable contracts can be rectified. In case of a void agreement, neither of the parties is subject to any compensation for any losses but voidable contracts have some remedies.

A valid agreement forms a contract that may again be either valid or voidable. The primary difference between a void agreement and voidable contract is that a void agreement cannot be converted into a contract.

(Extracted with edits from A Comparative Study of Voidable Contracts and Void Agreements)

69. Which of the following best describes a void agreement?
- (A) An agreement that is valid until declared invalid by a court
 - (B) An agreement that has no legal effect from the beginning
 - (C) An agreement that is legally enforceable
 - (D) An agreement that can be enforced if one party chooses to do so
70. A contract between two parties to rob a bank and share the proceeds equally can be termed as:

- (A) Void Contract
- (B) Valid Contract
- (C) Voidable Contract
- (D) Legally Enforceable Contract

71. An agreement made by an adult but involving a minor child where the signatory is a minor child himself, this agreement would be:

- (A) A valid and enforceable agreement
- (B) A voidable agreement
- (C) A void agreement
- (D) An agreement that cannot be enforced by the minor

72. Which of the following scenarios would most likely result in a void agreement?

- (A) An agreement signed by someone under duress
- (B) A contract with mutually agreed terms to sell a house
- (C) An agreement to pay 10 lakhs on getting a government job
- (D) A contract with a minor who understands the terms

73. An agreement made without consideration is generally:

- (A) Valid agreement
- (B) Enforceable agreement
- (C) Void agreement
- (D) Voidable agreement

XIV. Geographical Indications (GIs) are a form of intellectual property that designates a product as originating from a specific geographic location, where a given quality, reputation, or other characteristic is essentially attributable to its geographic origin. GIs protect names that are used to identify products with specific qualities or characteristics due to their geographic origin. For example, 'Champagne' refers to sparkling wine produced in the Champagne region of France, and

‘Darjeeling Tea’ refers to tea grown in the Darjeeling region of India. The protection of GIs ensures that only products genuinely originating from a specific region are allowed to use the geographical name. This helps maintain the product’s reputation and quality, prevents misuse or imitation, and supports local economies by promoting regional products. International agreements such as the TRIPS Agreement under the World Trade Organization (WTO) provide a framework for the protection of GIs globally.

74. Which of the following statements about Geographical Indications (GIs) is not true?
- (A) GIs are protected under international law to ensure that only products from specific regions can use the GI name.
 - (B) The use of a GI name can be legally challenged if it is used by products not originating from the specified region.
 - (C) Geographical Indications (GI) can be used to any product which is licenced regardless of its place of origin.
 - (D) The TRIPS Agreement under the WTO establishes a framework for the protection of GIs on a global scale.
75. If a product named “Darjeeling Tea” is produced outside of the Darjeeling region, which of the following legal actions is likely to be taken under GI protection laws?
- (A) The product can still be sold but with a disclaimer about its true origin
 - (B) The use of the GI name “Darjeeling Tea” can be legally contested and potentially prohibited
 - (C) The product can be sold under a different GI name of “Not Darjeeling Tea”
 - (D) The product can be marketed as “Darjeeling Tea” and will face no legal consequences
76. Which of the following is not a potential consequence of the misuse of a Geographical Indication?
- (A) Loss of consumer trust in the authenticity of the product.
 - (B) Decrease in the market value of the GI-protected product.
 - (C) Compulsory license on the patents of the misusing entity
 - (D) Potential Legal action of infringement against the misuse.
77. In the context of GIs, which of the following scenarios best illustrates the concept of “geographic origin”?
- (A) A product’s name is changed to reflect its local ingredients rather than its place of production
 - (B) A product is marketed with a GI name even though it is produced in a different region and country
 - (C) A product is identified by a GI name that corresponds to the region where it is traditionally made/cultivated with distinctive qualities due to that location
 - (D) A product is sold under a generic name with no reference to its production location
78. Choose the most appropriate objective of the TRIPS Agreement concerning Geographical Indications:
- (A) To harmonize intellectual property laws across member countries
 - (B) To ensure uniform product labelling standards globally
 - (C) To provide a framework for the protection and enforcement of Geographical Indications among WTO members
 - (D) To promote international trade by standardizing product names and prices

XV. Children come in contact with the criminal justice system either as victims or witnesses to a crime or as children in conflict with law (CICL). As CICL, they could be alleged of, accused or recognised as having broken the law by committing a crime. According to the National Crime Records Bureau (NCRB) Report 2021, India recorded a total number of 1,49,404 instances of crimes against children in 2021 — a rise of over 16 per cent from the previous year. In terms of percentage, the top categories under crime against children were kidnapping and abduction, followed by cases registered under the POCSO Act. Further, the NCRB report revealed that of the total cases, 53,874 were registered under POCSO Sections. Sexual offences against children shows a steady ascent, with 47,221 such cases being recorded in 2020, and 47,335 cases in 2019. In 2019, as many as 32,269 cases were registered across the country, while the 2021 report registered a decline of 3.5 per cent recording 31,170 cases.

The Criminal Justice system of any country broadly refers to agencies of the government charged with enforcing law, adjudicating crime, and correcting criminal conduct. The main objective of the criminal justice system is ‘deterrence’, i.e., to punish the ‘transgressors and the criminals’ and to maintain law and order in the society. Globally, children and young people are routinely exposed to various forms of violence if they are before the criminal justice system. They are at risk of physical and psychological abuse, sexual assault, and other harms, including inadequate educational opportunities, poor and outdated vocational training. They face several

challenges including mental, emotional, and behavioural disorders. Children, who are victims of violence or exposed to violence during childhood, are more likely to have difficulty in school, abuse drugs or alcohol, act aggressively, suffer from depression or other mental health problems and engage in criminal behaviour as adults.

[Extracted, with edits and revisions from “Child Rights in the Criminal Justice System: Need for Law Reform” written by Dr. Asha Bajpai published in the Journal of the National Human Rights Commission, India].

79. Which of the following issues, children, who are victims of violence during childhood face in life, as per the author of the above passage?
 - (A) They may have difficulties in school
 - (B) They may abuse drugs or alcohol and suffer from mental health problems
 - (C) They may act aggressively and engage in criminal behaviours
 - (D) All of the above
80. What is the primary objective of the criminal justice system as mentioned in the passage?
 - (A) Rehabilitation of offenders
 - (B) Punishment of the offenders
 - (C) Reformation of the offenders
 - (D) Protection of victims from the offender
81. The National Crime Records Bureau (NCRB) in India is responsible for:
 - (A) Conducting forensic investigations of Records of Criminals
 - (B) Maintaining a national database of fingerprints of Criminals
 - (C) Compiling and analysing crime data
 - (D) Maintaining a national database of enforcement of criminal laws

82. Which category had the highest number of cases under crimes against children according to the NCRB Report 2021?
- (A) POCSO
(B) Kidnapping and abduction
(C) Sexual Offences
(D) All of the above
83. Which one of the following is the correct expansion of the term POCSO used in the passage?
- (A) Protection of Children from Sexual Offences
(B) Prosecution of Criminals of Sexual Offences
(C) Protection of Children & Women from Sexual Offences
(D) None of the above
84. What risks do children face when exposed to the criminal justice system as per the passage?
- (A) Limited access to vocational training
(B) Exposed to risk of physical abuse
(C) Mental health challenges and behavioural disorders
(D) All of the above

Logical Reasoning

XVI. India is poised for rapid economic growth, potentially spurred by a young population driving production and demand. In the process, inevitably, lifestyles are being dramatically altered for the worse. India now reports the highest growth of ultra-processed food consumption among the youth, as well as low levels of exercise and adequate sleep. Cultural changes, including smartphones and a preponderance of English in schools, are also associated with weakened family relationships. Until recently, in the absence of extensive data, the role of these factors on mental well-

being, encompassing our full range of mental capability, was not well understood. Recent findings based on a large database of over 1,50,000 individuals in India are beginning to shed light on the correlates of mental well-being among adolescents. The findings are dire. There is a silent epidemic of mental ill-health in India. Previous studies have found that ownership of smartphones is “frying” the brain. Data also suggests that it is not merely the ownership of a phone but also the early age of access that is associated with worse cognition and mental well-being as young adults. The young brain is developing and must be nurtured. These gadgets are handed to adolescents, presumably more out of convenience than sound logic. The American philosopher David Henry Thoreau remarked over 175 years ago, “Technology is an improved means to an unimproved end.” This is an extreme position but one worth mulling. India reports the highest growth in consumption of ultra-processed foods. Some evidence suggests that these foods are as addictive as smoking. Recent data globally and from India shows a strong association between the consumption of ultra-processed foods and poor mental well-being, particularly the capacities for emotional and cognitive control.

[Source- V. Anantha Nageswaran and Shailender Swaminathan, “How our lifestyle is creating an epidemic of mental ill health”, THE INDIAN EXPRESS, September 7, 2024]

85. Based on the above passage, which of the following should be the most suitable title for the passage?
- (A) Lifestyle and Mental Health

- (B) Economic Growth and Mental Health
(C) Impact of Technology on the Youth
(D) Language and Cultural Change
86. Consider the given statement "Technology is an improved means to an unimproved end". Which of the following closely reflects the meaning of the given statement?
- (A) New technologies have to be accepted by primarily focusing on its positive results
(B) New technologies create a hindrance to the physical health of an individual
(C) Poor mental health is a result of the invention of new technologies
(D) New technologies should be looked upon with scepticism, considering its negative impact
87. Which of the following statements strengthens the author's argument regarding the negative use of smartphones among the youth?
- (A) Excessive use of smartphones may lead to weakened family relationships
(B) There has to be an unhindered use of smartphones
(C) Smartphones have economic usefulness
(D) Ownership of smartphones at an early age results due to lack of care by parents
88. Which of the following can be a plausible solution for better mental well-being among the youth?
- (A) Limiting the correlation between physical and mental health
(B) Limiting the research on excessive use of smartphones
(C) Limiting the widespread consumption of ultra-processed foods
(D) Limiting the informed use of smartphones across all age groups
89. Which of the following statements by the author lack credible evidence in the passage?
- (A) Excessive mobile usage linked to mental health issues
(B) Providing mobiles to adolescents resulting in mental stress
(C) Students learning the English language have weakened family relationships
(D) Inadequate sleep and junk food resulting in mental distress
90. "These gadgets are handed to adolescents, presumably more out of convenience than sound logic." Which of the following is the most suitable explanation echoed by the author as per the given statement?
- (A) Logic prevails over reasoning
(B) Logic and emotions go hand in hand
(C) Logic taking a backseat over utility
(D) Logic and benefits can never be understood together
- XVII. Read the information carefully and answer the questions based on the seating arrangement:
"Ram, Shyam, Rohit, Mohit, Rohan, Sohan, Mohan, Rakesh and Suresh are sitting around a circle facing the centre. Rohit is third to the left of Ram. Rohan is fourth to the right of Ram. Mohit is fourth to the left of Suresh who is second to the right of Ram. Sohan is third to the right of Shyam. Mohan is not an immediate neighbour of Ram."
91. What is Rakesh's position with respect to Rohan?
- (A) Eighth to the right of Ram
(B) Fourth to the left
(C) Fifth to the right
(D) Fifth to the left
92. Who is third to the right of Mohan?
- (A) Shyam (B) Mohit
(C) Ram (D) None of these

93. Who is fifth to the right of Rohan?
(A) Sohan (B) Rohit
(C) Rakesh (D) Suresh
94. Who is second to the left of Rakesh?
(A) Ram (B) Mohan
(C) Mohit (D) Data inadequate
95. Who is the immediate right of Mohit?
(A) Sohan (B) Rohit
(C) Ram (D) Data inadequate
96. Who is third to the right of Sohan?
(A) Rohit (B) Rohan
(C) Rakesh (D) Shyam
- XVIII. Being a consultant, your work consists of a deep examination of the company's environment and its internal system to notice inefficiencies and potential improvements. The interaction with the company's management and different sections to decipher their objectives, opportunities, and processes. This means that, through the use of data analysis, industry best practices, and the formulation of creative ways of solving all problems, to come up with unique solutions to all problems to increase efficiency and productivity, and hence, increase profitability for employers. This might entail operations such as logistics redesign, business process reengineering, adopting new applications, systems, or even community relation programs. People management is a critical component of change management, to make sure that all the relevant parties interpret the potential alterations positively. Also, to offer orientation and create resources to explain the changes to the group and make it comfortable with the shift. The general goal is the organization's ability to continue to grow and remain relevant with the shareholders and stakeholders in the industries it operates.
97. What is the primary responsibility of you being a company's efficient consultant?
(A) Analyzing the organization's structure, processes, and market position
(B) Managing daily operations
(C) Hiring new employees
(D) Conducting maintenance
98. With whom does a consultant work closely to understand a company's goals and challenges?
(A) Customers
(B) Higher management and various departments
(C) External vendors
(D) Competitors
99. Imagine yourself as a consultant and find what methods you will use to develop customized solutions?
(A) Intuition and guesswork
(B) Social media trends
(C) Random selection
(D) Data analysis, industry best practices, and innovative strategies
100. Which of the following might a consultant optimize to improve company efficiency?
(A) Office decoration
(B) Supply chain management
(C) Employee dress code
(D) Lunch menus
101. Why is communication the most relevant thing for a consultant?
(A) To ensure all stakeholders understand the proposed changes
(B) To organize consumer meets
(C) To update the company website
(D) To manage the human resources
102. What additional support might a consultant provide to help the team adapt to new processes?
(A) Planning a retreat for the team members

(B) Training and support

(C) Personal counselling

(D) Mental Health programs

XIX. While a majority of homeless groups exist solely in modernized cultures, homelessness remains a problem throughout the world. Everywhere there are people in constant search of food, water and shelter. Many of these people have nowhere to go and can find no end or relief to their suffering. Homelessness was originally believed to be a cultural problem but is now revealing itself as a global problem. It is a problem suffered by all of humanity and must be faced and solved as such. Although this problem exists everywhere, it is more severe in certain parts of the world. Due to the differing circumstances of homelessness around the world, there can be no one solution or one set of guidelines for everyone to follow. Even the United States constantly struggles with homelessness, despite being one of the wealthiest countries in the world. According to a 2005 survey by the United Nations, 1.6 billion people lack adequate housing. The causes vary depending on the place and person. Common reasons include a lack of affordable housing, poverty, a lack of mental health services, and more. Homelessness is rooted in systemic failures that fail to protect those who are most vulnerable. Approximately 580,000 people experience homelessness on any given night in the United States, as stated by the Housing and Urban Development (HUD) Department of the United States. The number of individuals experiencing homelessness varies by region, with urban areas experiencing higher rates of homelessness compared to rural areas. The COVID-19 pandemic has exacerbated homelessness and housing insecurity,

leading to increased rates of eviction, unemployment, and housing instability.

Using social distancing measures to curb the virus's transmission has presented difficulties for homeless shelters and service providers in maintaining their capacity. The economic fallout from the pandemic has further strained resources and support systems for individuals and families experiencing homelessness.

(Extracted with revisions and modifications from an article 'The impact of COVID-19 and housing insecurity on lower-income women' published in Journal of Social Issues, October 3, 2022)

103. For the above paragraph, which of the following statements is true?

(A) When people in industrialized civilizations think of homelessness, they generally imagine third-world countries where poverty is rampant

(B) Generally, the impoverished are thought of to exist in third-world countries only, but they are present even in the largest cities of the world

(C) Homelessness increases due to major turbulence on the economic and cultural aspects

(D) All of the Above

104. There are several causes of homelessness; which of the following is the least likely a cause of homelessness?

(A) violence in the home

(B) loss of job or income

(C) substance abuse

(D) proper health care

105. Homelessness in case of mental illness can be amplified because of the following reason:

(A) The stress of being homeless may exacerbate previous mental illness and encourage anxiety, fear, depression, sleeplessness and substance use.

- (B) People with mental illness remain homeless for longer periods of time and have less contact with family and friends.
- (C) Poor mental health predisposes individuals to homelessness and homelessness exposes individuals further to particularly severe health problems.
- (D) All of the above
106. Homelessness in reference to the above paragraph can be observed most closely in the form of:
- (A) Inadequate entertainment avenues
- (B) Shortage of appropriate clothing
- (C) Poor prospects for employment
- (D) Inadequate medial services
107. Approximately how many people in America are currently experiencing homelessness on any given day?
- (A) 1 million people
- (B) More than 5.5 million
- (C) 3.5 million
- (D) 100 million
108. Which of the following is not a myth about people experiencing homelessness?
- (A) People who are homeless choose to be so, by themselves
- (B) People experiencing homelessness are lazy
- (C) All people who experience homelessness are addicts
- (D) People experiencing homelessness find it difficult to obtain a job

Quantitative Techniques

XX. According to the estimates of the World Inequality Report 2022, in India, men earn 82 percent of the labour income, whereas women earn 18 percent of it. A woman agriculture field labourer makes Rs. 88 per

day lesser than her male counterpart, according to the Ministry of Agriculture's data for 2020-21. While a man is paid Rs. 383 a day on an average, a woman makes a mere Rs. 294 a day. The gap in their daily wages is more than the cost of two kilograms of rice. This gap differs from State to State. Field laborers, for instance, make the most money in Kerala. While a man gets Rs. 789 per day, a woman is paid Rs. 537. While this is the highest amount paid to a woman labourer in a State, it is also Rs. 252 lesser than what her male counterpart was paid. As of 2020-21, Tamil Nadu has the highest gender wage gap among agriculture field laborers at 112 percent. It is followed by Goa (61 percent) and Kerala. The wage gap is the lowest in Jharkhand and Gujarat (6 percent each), but the women laborers there get paid just Rs. 239 and Rs. 247 per day, respectively. Men earn more than women across all forms of work, the gap greatest for the self-employed. In 2023, male self-employed workers earned 2.8 times that of women. In contrast, male regular wage workers earned 24% more than women and male casual workers earned 48% more. The gender gap in earnings is still a persistent phenomenon. However, there are differences in trends. The gender gap has increased for self-employed workers, while falling for regular wage workers. Male regular wage workers earned 34% more than women from 2019 to 2022, with the gap falling to 24% in 2023.

109. If a female casual worker earns Rs. 200 per hour, what is the hourly wage of a male casual worker, given that male casual workers earn 48% more than female casual workers?

- (A) Rs. 480 (B) Rs. 296
(C) Rs. 248 (D) Cannot be determined
110. Assume that in 2022, the earnings gap between male and female self-employed workers was 2.5 times. In 2023, the gap increased to 2.8 times. What is the percentage increase in the earnings gap for self-employed workers from 2022 to 2023?
(A) 12% (B) 5%
(C) 4.8% (D) 24%
111. Which of the following statement is correct?
(A) The wage gap of Goa and Kerala state is less than Tamil Nadu
(B) The wage gap of Tamil Nadu is greater than Jharkhand and Gujarat
(C) Both (a) and (b)
(D) None of the above
112. If the wages paid to men working in agricultural sector in Goa are Rs. 335 on an average, what is the amount of wages paid to women in the region?
(A) Rs. 204 approx. (B) Rs. 330 approx.
(C) Rs. 239 approx. (D) None of these
113. With reference to the information in Ques. 109 above, which region of the below mentioned states offers the least wages to the women workers in any sector?
(A) Gujarat (B) Goa
(C) Kerala (D) Jharkhand
114. In 2023, if the average annual income of female self-employed workers is Rs. 250, how much do male self-employed workers earn on an average?
(A) Rs. 550 (B) Rs. 673
(C) Rs. 700 (D) None of these
- XXI. Mr. Das is working in a construction company. He has a family, including his wife and a daughter. His total monthly income includes a salary of Rs. 9228/- and a 10% house rent allowance. Due to increasing inflation, he is keeping a home budget that accounts for the income and expenses of the household. Out of his total monthly income, he spends 25% on food expenses, 18% on paying the house-rent, 9% on entertainment, 23% on the education of his child, 13% on medical expenses, and he saves 12% of his total monthly income.
- Based on the above information, answer the following questions.
115. How much money remains for other expenses after the house-rent and savings?
(A) Rs. 7061/- (B) Rs. 7601/-
(C) Rs. 7106/- (D) Rs. 7016/-
116. If the expenditure on food and entertainment is increased by 10% due to inflation in prices, what will be the new percentage of savings in the same monthly salary?
(A) 8.4% (B) 8.6%
(C) 8.8% (D) 8.2%
117. How much total money has he spent on food and entertainment?
(A) Rs. 3541/- (B) Rs. 3461/-
(C) Rs. 3371/- (D) None of the above
118. How much money does Mr. Das pay as the house-rent?
(A) Rs. 1827 /- (B) Rs. 1661 /-
(C) Rs. 1783 /- (D) Rs. 1935 /-
119. If Mr. Das gets 12% annual interest on the savings and he wishes to save Rs. 30,000/- in two years period, how much extra should he save in the next year?
(A) Rs. 1200/-
(B) Rs. 1300/-
(C) Rs. 1400/-
(D) There is no need for saving
120. Which of the following is true regarding the home budget of Mr. Das?
(A) The total amount spent on house-rent,

- entertainment and education is greater than the total amount spent on food expenses, medical expenses and savings
- (B) The total amount spent on entertainment, medical expenses and education is equal to the total amount spent on house-rent, food expenses and savings
- (C) The total amount spent on savings, medical expenses and education is less than the total amount spent on house-rent, food expenses and entertainment
- (D) None of the above



MCQs Answers : CLAT

English Languages

1 (A)	2 (B)	3 (C)	4 (D)	5 (B)	6 (D)	7 (A)	8 (C)	9 (B)	10 (D)
11 (D)	12 (D)	13 (C)	14 (B)	15 (A)	16 (C)	17 (D)	18 (D)	19 (D)	20 (D)
21 (A)	22 (D)	23 (C)	24 (D)						

Current Affairs Including General Knowledge

25 (B)	26 (B)	27 (A)	28 (B)	29 (B)	30 (D)	31 (D)	32 (D)	33 (C)	34 (D)
35 (D)	36 (D)	37 (A)	38 (B)	39 (D)	40 (A)	41 (A)	42 (C)	43 (B)	44 (A)
45 (A)	46 (D)	47 (C)	48 (D)	49 (D)	50 (C)	51 (D)	52 (D)		

Legal Reasoning

53 (A)	54 (B)	55 (C)	56 (B)	57 (D)	58 (D)	59 (D)	60 (D)	61 (A)	62 (A)
63 (B)	64 (A)	65 (D)	66 (D)	67 (A)	68 (D)	69 (B)	70 (A)	71 (B)	72 (C)
73 (C)	74 (C)	75 (B)	76 (C)	77 (C)	78 (C)	79 (D)	80 (B)	81 (C)	82 (B)
83 (A)	84 (D)								

Logical Reasoning

85 (A)	86 (D)	87 (A)	88 (C)	89 (C)	90 (C)	91 (☆)	92 (D)	93 (☆)	94 (D)
95 (A)	96 (☆)	97 (A)	98 (B)	99 (D)	100 (B)	101 (A)	102 (B)	103 (C)	104 (D)
105 (C)	106 (C)	107 (☆)	108 (D)						

Quantitative Aptitude

109 (B)	110 (A)	111 (C)	112 (A)	113 (B)	114 (C)	115 (C)	116 (B)	117 (D)	118 (A)
119 (D)	120 (C)								

☆ Q. No. 91, 93, 96, 107 are withdrawn.

Previous Year Civil Service Prelims Question Paper

General Studies

Full Marks : 200

Time : 60 Minutes

1. On November 21, 2024, the Assam Government officially renamed the Karimganj district as Sribhumi, along with its headquarters town Karimganj, which will now be called Sribhumi town. The new name was inspired by Rabindranath Tagore's description of the area over a century ago as 'Sribhumi'. As per Kabiguru Tagore's description, the word 'Sribhumi' is referred to as
 - (A) the land of Maa Lakshmi
 - (B) the land of Maa Durga
 - (C) the land of Maa Kamakhya
 - (D) the land of Maa Saraswati
2. The Assam Government's decision to officially recognize 'Bathouism' in the Bodoland Territorial Region (BTR) primarily aims to
 - (A) promote religious conversion among indigenous communities
 - (B) preserve and acknowledge the traditional faith of the Bodo community
 - (C) encourage tourism in the Bodoland region
 - (D) integrate Bathouism practices into mainstream Hindu rituals
3. On February 24, 2025, Prime Minister Narendra Modi attended the largest Jhumur event in history, celebrating the 200th anniversary of Assam's tea industry. Consider the following statements:
 - (i) The tea garden community migrated from Central India in the 19th century to work in the tea gardens of Assam.
 - (ii) Jhumur dance originates from the Sadan ethnolinguistic group of the Chota Nagpur region.
 - (iii) The songs sung during Jhumur performances often depict the struggles of tea plantation workers. They narrate stories of migration and exploitation, depicting the community's socio-economic challenges.
 - (iv) Jhumur dance plays a vital role in tea garden festivals, particularly during Tushu Puja and Karam Puja, which celebrate the harvest time.Which of the above statements is/are not correct?
 - (A) (ii) only
 - (B) (i) and (iii) only
 - (C) (iii) and (iv) only
 - (D) None of the above
4. Which of the following statements about Kaziranga National Park is incorrect?
 - (A) It is a UNESCO World Heritage Site.
 - (B) It is home to the highest population of one-horned rhinoceroses in the world.
 - (C) It was declared a Tiger Reserve in 2003.
 - (D) It is situated on the banks of the Brahmaputra River and lies between the Brahmaputra River and the Karbi Hills.
5. In February 2025, a significant conservation milestone was achieved in Assam concerning the Greater Adjutant Stork. Which of the following best describes this achievement?
 - (A) The species was declared "extinct in the wild"
 - (B) The stork population increased from 450 to over 1800 birds
 - (C) A new sanctuary exclusively for the stork was established

- (D) The species was removed from the endangered list
6. In early 2025, a rare marbled cat was spotted in which National Park of Assam?
- (A) Dehing Patkai National Park
(B) Kaziranga National Park
(C) Manas National Park
(D) Nameri National Park
7. In early 2025, concerns arose regarding declining pungency of the Bhut Jolokia chili in Assam. What was identified as the primary cause of it?
- (A) Climate change affecting soil temperature
(B) Overuse of fertilizers altering soil quality
(C) Introduction of genetically modified variants
(D) Pests attacking the chili plants
8. The Soliga tribe inhabits the Biligiri Rangaswamy Temple (BRT) Tiger Reserve in Karnataka. Their relationship with the tiger population is very important to conservation efforts. Consider the following statements in connection with Soliga tribe:
- (i) The name 'Soliga' means 'children of bamboo'.
(ii) The Soligas worship tigers as sacred beings. They refer to the tiger as Dodda Nayi and maintain a temple dedicated to it.
(iii) The Soligas were the first tribal community to have their forest rights recognized within a tiger reserve.
(iv) The Soliga tribe is confined to the State of Karnataka alone.
- Which of the above statements is/are not correct?
- (A) (i) only (B) (ii) and (iii) only
(C) (iv) only (D) (iii) only
9. India plans to issue Sovereign Green Bonds to raise money for green infrastructure projects. Consider the following statements regarding India's Sovereign Green Bonds:
- Statement 1: The funds raised will be used to finance public projects that lower the economy's carbon intensity.
Statement 2: India issued its first Sovereign Green Bond in 2023.
Statement 3: Green Bonds are part of India's strategy to achieve net zero emissions by 2070.
Statement 4: Only private investors can subscribe to Green Bonds.
- Which of the above statements are correct?
- (A) 1 and 4 only (B) 1, 2 and 3 only
(C) 1, 3 and 4 only (D) 1, 2, 3 and 4
10. The National One Health Mission is a recently launched initiative in India aimed at strengthening the country's response to diseases and promoting a holistic approach to public health. Consider the following statements about India's One Health Mission:
- Statement 1: The One Health Mission integrates human, animal and environmental health under a single framework.
Statement 2: The initiative is funded entirely by the Government of India without any international collaboration.
Statement 3: The Mission aims to track zoonotic diseases like Nipah and avian influenza.
Statement 4: India is the first country in Asia to adopt a One Health approach.
- Which of the above statements are correct?
- (A) 1 and 3 only (B) 2 and 4 only
(C) 1, 3 and 4 only (D) 1, 2, 3 and 4

11. Consider the following statements regarding 'Eat Right Station' certification:
- Statement 1: It is an initiative by the Food Safety and Standards Authority of India (FSSAI).
- Statement 2: As of February 2025, 150 railway stations and 6 metro stations have received the certification.
- Which of the above statements is/are correct?
- (A) 1 only (B) 2 only
(C) Both 1 and 2 (D) Neither 1 nor 2
12. The 'Viksit Bharat 2047' initiative is the Government of India's visionary road map to transform the nation into a developed country by 2047, marking the centenary of its independence. Consider the following four key objectives of the initiative:
- Objective 1: Elevate India to become the world's third largest economy within the next five years, aiming for a \$100 trillion economy by 2047.
- Objective 2: Empower youth, women, the underprivileged and farmers, recognizing them as pivotal contributors to national development.
- Objective 3: Implement strategies to address climate change and promote sustainable practices.
- Objective 4: Enhance administrative efficiency and transparency to ensure effective public service delivery.
- Which of the above key objectives is/are not correct?
- (A) 1 only (B) 2 only
(C) 1 and 2 only (D) 3 and 4 only
13. Which of the following statements describes tariff in the context of international trade?
- (A) It is a tax on imports into a country.
(B) It is a tax imposed by a country on goods crossing its border.
(C) It is a quantitative restriction on traded goods.
(D) It is a reciprocal tax.
14. What is meant by 'repo rate' of the RBI?
- (A) It is the rate of interest at which commercial banks offer loans.
(B) It is the percentage of total deposits of commercial banks that is kept in cash.
(C) It is the rate of interest at which commercial banks borrow money from the RBI for short-term needs.
(D) It is the rate at which commercial banks lend to each other.
15. Consider the following statements about Kumbh Mela of India:
- (i) It is the oldest recorded religious festival of the world.
(ii) The earliest reference to Prayaga and bathing pilgrimage is found in the Rigveda Parishishta (supplement to the Rigveda).
(iii) The frequency of one Purna Kumbh Mela every 12 years coincides with one revolution of Jupiter around the Sun (approx.).
- Which of the above statements are correct?
- (A) (i) and (ii) only (B) (ii) and (iii) only
(C) (i) and (iii) only (D) (i), (ii) and (iii)
16. Which of the following ocean currents is/are warm current(s) in the Atlantic and Pacific Oceans?
- (i) Benguela Current
(ii) Kuroshio Current
(iii) Norwegian Current
(iv) Peru Current

Select the correct answer using the codes given below.

- (A) (ii) only (B) (ii) and (iii) only
(C) (iv) only (D) (i) and (iv) only

17. Which of the following pairs concerning canal irrigation of India is/are not correct?

- (i) Agra Canal - Yamuna River
(ii) Upper Bari Doab Canal - Jhelum River
(iii) Sirhind Canal - Ravi River
(iv) Bikaner Canal - Satluj River

Select the correct answer using the codes given below.

- (A) (ii) only
(B) (ii) and (iii) only
(C) (ii) and (iv) only
(D) (i), (iii) and (iv) only

18. Which of the following sequences or statements concerning tributaries of the Brahmaputra in Assam is/are not correct?

- (i) The North bank tributaries (from West to East): Sankosh, Manas, Puthimari, Pagladiya
(ii) The South bank tributaries (from East to West): Buri Dihing, Bhogdoi, Dhansiri, Kopili
(iii) The North bank tributaries (from East to West): Jiahdal, Subansiri, Ranganadi, Jia Bharali
(iv) The River Barnadi forms a natural boundary between Darrang and Kamrup districts.

Select the correct answer using the codes given below.

- (A) (i) only
(B) (i) and (ii) only
(C) (ii) and (iv) only
(D) (i), (ii) and (iii) only

19. Which of the following statements concerning Tinsukia district of Assam is/are correct?

- (i) It is the Easternmost district of Assam having surrounded by Arunachal Pradesh from three sides.
(ii) It is an industrial district well-known for coal, oil and tea production.
(iii) The Dhola-Sadiya Bridge, which is well-known as Bhupen Hazarika Setu, is constructed on the River Lohit located in this district.

- (iv) The Maguri Motapung Beel is located in this district.

Select the correct answer using the codes given below.

- (A) (i) only
(B) (i) and (ii) only
(C) (ii), (iii) and (iv) only
(D) All the statements are correct

20. Rising intensities of floods and damages in Assam are said to have prime explanation(s):

- (i) The water flow has become sudden and high, induced by natural and anthropogenic factors as well
(ii) People have established settlements in low-lying areas

Select the correct options given below from the options given below.

- (A) Only (i) is right
(B) Only (ii) is right
(C) Both (i) and (ii) are true, and inclusive to explain the causes of rising intensity
(D) Both (i) and (ii) are true, but inclusive statements to explain intensity of floods, at present state of technology and development

21. The impact of cyclones and tsunamis in India could be reduced by

- (i) preserving mangrove forests
(ii) preserving montane forests
(iii) preserving tropical thorny and scrub forests

- (iv) preserving tropical deciduous forests
Select the correct answer using the codes given below.
(A) (i) only
(B) (i) and (ii) only
(C) (i), (iii) and (iv) only
(D) All are correct
22. Authors Arup Kumar Dutta, Arupjyoti Saikia and Samrat Choudhury have common theme(s) in their writing:
(i) They are acclaimed writers on the Brahmaputra
(ii) They have written on Assam's social history
(iii) They have written on tea and tea plantation history
(iv) They have written on Assam's geography
Which of the above is/are correct?
(A) (i) only
(B) (i) and (ii) only
(C) (i), (iii) and (iv) only
(D) All are correct
23. In India during 2001 to 2011, the number of census towns showed rapid growth (increased by a total of 2500 in number) compared to statutory towns (increased by about 250 in number). The rapid growth of census towns was because of
(i) formation of municipal board/committee and notified town area committee, etc.
(ii) rapid growth of population leading to cross the minimum requirement of 5000 inhabitants to qualify as a town
(iii) the town area becoming densely populated with more than 400 persons per square kilometre
(iv) three-fourths of the male workforce found full-time jobs beyond agriculture activities
Select the correct answer using the codes given below.
(A) (i), (ii) and (iii) only
(B) (ii), (iii) and (iv) only
(C) (i), (iii) and (iv) only
(D) (iv) only
24. Rangsapara village, Goalpara district and Zion village, Dima Hasao district of Assam occupied the limelight in the last decade because
(i) the villages were evaluated as the cleanest villages of the State
(ii) Rangsapara was evaluated as the cleanest, whereas all 25+ age group population of Zion had attained education level graduate and above
(iii) Rangsapara village faced catastrophe caused by flash flood and Zion was devastated by landslides
Select the correct answer from the options given below.
(A) Only (i) is correct
(B) Only (ii) is correct
(C) Only (iii) is correct
(D) All are correct
25. Consider the following statements about oil in Assam:
(i) Assam is home to India's first oil refinery, established at Digboi in 1901.
(ii) The major oil-producing districts in Assam include Jorhat, Dibrugarh, but not Tinsukia.
(iii) The Assam oil fields contribute over 50% of India's total crude oil production.
(iv) Oil India Limited (OIL) has its headquarters in Duliajan, Assam.
Which of the above statements is/are correct?
(A) (i) and (ii) only
(B) (i) and (iv) only
(C) (i) only
(D) (i), (ii) and (iii) only
26. Based on the 2011 Census data, here is a list of major towns in Assam arranged in descending order of their urban population.

Select the correct sequence.

- (A) Tinsukia, Tezpur, Jorhat, Dibrugarh
- (B) Dibrugarh, Tezpur, Jorhat, Tinsukia
- (C) Dibrugarh, Tinsukia, Jorhat, Tezpur
- (D) Dibrugarh, Jorhat, Tinsukia, Tezpur

27. Match the following deserts (List-I) with their respective continents (List-II):

List-I**List-II**

- | | |
|-----------------------|------------------|
| a. Kalahari Desert | 1. North America |
| b. Atacama Desert | 2. Asia |
| c. Gobi Desert | 3. South America |
| d. Great Basin Desert | 4. Africa |

Select the correct answer using the codes given below.

- | | | | |
|-------|---|---|---|
| (A) a | b | c | d |
| 4 | 1 | 2 | 3 |
| (B) a | b | c | d |
| 4 | 3 | 2 | 1 |
| (C) a | b | c | d |
| 4 | 2 | 1 | 3 |
| (D) a | b | c | d |
| 3 | 4 | 2 | 1 |

28. Match the following grasslands (List-I) with their respective locations (List-II):

List-I**List-II**

- | | |
|-------------|------------------|
| a. Pampas | 1. North America |
| b. Steppes | 2. Eurasia |
| c. Prairies | 3. Argentina |
| d. Velds | 4. South Africa |

Select the correct answer using the codes given below.

given below.

- | | | | |
|-------|---|---|---|
| (A) a | b | c | d |
| 3 | 2 | 1 | 4 |
| (B) a | b | c | d |
| 2 | 1 | 3 | 4 |
| (C) a | b | c | d |
| 4 | 3 | 2 | 1 |
| (D) a | b | c | d |
| 1 | 3 | 4 | 2 |

29. Which of the following statements about Paralympic Games is not correct?

- (A) The medals tally of India was the highest so far in any Paralympic event with a total of 29 medals in Paris, 2024.
- (B) India made first appearance in the Paralympic event in the year 1968.
- (C) The first Paralympic event was held in the year 1968.
- (D) The Paralympic motto is 'Spirit in Motion'.

30. What is the recent India-US 'TRUST' initiative related to?

- (A) It is a bilateral initiative for mutual cooperation in recovery and processing of critical minerals
- (B) It is a bilateral initiative to ease certain import-export regulations between the two countries
- (C) It refers to a bilateral initiative for transfer of technology for boosting the power sector
- (D) None of the above

31. Who among the following is not a Bharat Ratna awardee of the year 2024?

- (A) L. K. Advani
- (B) M. S. Swaminathan
- (C) Padma Subrahmanyam
- (D) Karpoori Thakur

32. In which of the following areas, the first pig schools of India are to be started to enhance technical know-how and biosecurity about pig farming in partnership with Denmark?

- (A) Bodoland Territorial Region
- (B) Dima Hasao district of Assam
- (C) Dhemaji district of Assam
- (D) Panikhaiti near Guwahati

33. Match the following Prime Ministers (List-I) with the biographies/auto-biographies on them (List-II):

List-I

a. Narasimha Rao

b. I. K. Gujral

c. Manmohan Singh

d. Narendra Modi

List-II1. *The Accidental Prime Minister*2. *Matters of Discretion*3. *The Man Who Remade India*4. *The Paradoxical Prime Minister*

Select the correct answer using the codes given below.

(A) a b c d

3 4 1 2

(B) a b c d

3 4 2 1

(C) a b c d

1 2 3 4

(D) a b c d

3 2 1 4

34. Consider the following statements on Bharatiya Nyaya Sanhita, 2023:

- (i) It introduces new crimes like organized crime.
- (ii) It introduces community service as a punishment.
- (iii) It introduces new provisions to eliminate offence on sedition.
- (iv) It includes mob lynching as an offence.

Select the correct answer from the options given below.

(A) Only (i) and (ii) are correct

(B) Only (ii) is correct

(C) None of the statements is correct

(D) All the statements are correct

35. The demarcation of any region as Defence Industrial Corridor (DIC) is to achieve self-reliance in defence manufacturing. Two DICs exist in India and the third has been negotiated by a State with the Central Government in recent years. Choose the correct combination of the States/Union

Territories on the basis of the above statements.

(A) Gujarat, Maharashtra, Tamil Nadu

(B) Uttar Pradesh, Tamil Nadu, Assam

(C) Tamil Nadu, Gujarat, Jammu & Kashmir

(D) Assam, Jammu & Kashmir, Gujarat

36. The 100th Constitutional Amendment of India enabled the implementation of a controversial international agreement. Which of the following is referred to here?

(A) Land Boundary Agreement

(B) Foreign Direct Investment in Defence

(C) Trade Liberalization Agreement

(D) Indo-US Nuclear Deal

37. The Supreme Court of India has placed the Right to Privacy under which of the following Articles of the Constitution of India?

(A) Article 15

(B) Article 16

(C) Article 19

(D) Article 21

38. Consider the following statements:

- (i) The first Assam Assembly was inaugurated on 7th April, 1937.
- (ii) After the 1937 provincial elections in Assam, the Indian National Congress Party secured the most mandate.
- (iii) The Legislative Council of Eastern Bengal and Assam was initiated in 1905.
- (iv) Baithalangso, Haflong, Bokajan, Howraghat and Diphu Assembly Constituencies fall under the Autonomous District Lok Sabha Constituency.

Which of the above statements is/are correct?

(A) (i) and (ii) only

(B) (iii) only

(C) (ii) and (iv) only

(D) (i), (ii), (iii) and (iv)

39. Which of the following are constituted by the President of India?

- (i) The Finance Commission of India

- (ii) The NITI Aayog
(iii) The Commission on Official Languages
(iv) The Union Public Service Commission
Select the correct answer using the codes given below.
(A) (i) and (ii) only
(B) (iii) and (iv) only
(C) (i), (iii) and (iv) only
(D) (ii), (iii) and (iv) only
40. Which of the following is/are common feature(s) of both the Indian and American Federalism?
(i) Single citizenship
(ii) Three lists of division of powers in the Constitution
(iii) Dual Judiciary
(iv) The Supreme Court to interpret the Constitution
Select the correct answer using the codes given below.
(A) (i) and (iv) only
(B) (i), (ii) and (iii) only
(C) (i), (ii) and (iv) only
(D) (iv) only
41. Which of the following comes under the Directive Principles of State Policy?
(A) The State shall strive to promote science and technology for development
(B) The State shall endeavour to secure citizens a Uniform Civil Code throughout India
(C) The State shall try to develop population policy and family planning
(D) The State shall take necessary steps for promoting tourism
42. In which of the following States, there is a constitutional requirement to have a minister in charge of the tribal welfare?
(A) Assam, Nagaland and Manipur
(B) Himachal Pradesh, Haryana and Rajasthan
(C) Bihar, Madhya Pradesh and Odisha
(D) Manipur, Tripura and Meghalaya
43. Which of the following States was the last one to get the status of full statehood?
(A) Sikkim (B) Manipur
(C) Arunachal Pradesh (D) Meghalaya
44. Under which Article of the Indian Constitution, a special provision is made for the State of Assam?
(A) Article 371A (B) Article 371C
(C) Article 371B (D) Article 371D
45. Which of the following Articles of the Constitution of India grants the Supreme Court of India the power to review its own judgements and orders?
(A) Article 78 (B) Article 234
(C) Article 145 (D) Article 137
46. Match the following Chief Ministers of Assam (List-I) with their corresponding periods of service (List-II):
- | List-I | List-II |
|-----------------------------|------------------------------------|
| a. Bishnuram Medhi | 1. 28th Dec, 1957 – 6th Nov, 1970 |
| b. Mahendra Mohan Choudhury | 2. 26th Jan, 1950 – 5th Aug, 1950 |
| c. Bimala Prasad Chaliha | 3. 9th Aug, 1950 – 27th Dec, 1957 |
| d. Gopinath Bordoloi | 4. 11th Nov, 1970 – 30th Jan, 1972 |
- Select the correct answer using the codes given below.
- | | | | |
|-------|---|---|---|
| (A) a | b | c | d |
| 1 | 2 | 3 | 4 |
| (B) a | b | c | d |
| 3 | 4 | 1 | 2 |
| (C) a | b | c | d |
| 3 | 4 | 2 | 1 |
| (D) a | b | c | d |
| 3 | 1 | 4 | 2 |

47. Which of the following best explains why courts appoint an amicus curiae in criminal matters?
- (A) To ensure that the prosecution has adequate resources to argue its case
(B) To expedite the trial process for efficiency
(C) To provide representation to the accused when they are unrepresented
(D) To act as a mediator between the accused and the victim
48. The concept of 'Rule of Law' has several elements, some of which are as follows:
- (i) Absence of arbitrary power
(ii) Equality before law
(iii) Primacy of the rights of the individual
(iv) Cannot be destroyed by an amendment
- Which of the above are applicable to Indian system?
- (A) (i) and (ii) only
(B) (i), (ii) and (iii) only
(C) (ii), (iii) and (iv) only
(D) (i), (ii) and (iv) only
49. W. W. Rostow's model of economic development proposes that all countries progress through five stages. What is the correct sequence of the five stages?
- (A) (i) Traditional society, (ii) Preconditions for takeoff, (iii) Take-off, (iv) Age of high mass consumption, (v) Drive to maturity
(B) (i) Traditional society, (ii) Take-off, (iii) Preconditions for take-off, (iv) Drive to maturity, (v) Age of high mass consumption
(C) (i) Traditional society, (ii) Preconditions for takeoff, (iii) Take-off, (iv) Drive to maturity, (v) Age of high mass consumption
(D) (i) Traditional society, (ii) Preconditions for takeoff, (iii) Age of high mass consumption, (iv) Drive to maturity, (v) Take-off
50. Biofuels offer a viable alternative towards environmentally friendly energy landscape. Which of the following statements regarding use of biofuels to meet energy demands are correct?
- (i) Aggressive use and production of first-generation biofuels may threaten food security.
(ii) Production of first-generation biofuels is not environment-friendly.
(iii) A concern regarding biofuels is that extensive cultivation of plants for extracting biofuels may increase deforestation and habitat destruction.
(iv) Biofuel production will lead to large amount of toxic metallic waste which may adversely affect human health.
- Select the correct answer using the codes given below.
- (A) (i), (ii) and (iii) (B) (ii), (iii) and (iv)
(C) (i), (iii) and (iv) (D) (ii) and (iv) only
51. List-I gives the names of satellites launched by ISRO and List-II gives the names of the types of satellites. Match List-I with List-II:
- | List-I | List-II |
|-----------------------|--|
| (Names of satellites) | (Types of satellites) |
| a. RISAT-2BR2 | 1. Meteorological |
| b. Megha-Tropiques | 2. Earth observation |
| c. AstroSat | 3. Solar coronal observation |
| d. Aditya-L1 | 4. Study high-energy processes in binary star system |
- Select the correct answer using the codes given below.
- | | | | |
|-------|---|---|---|
| (A) a | b | c | d |
| 2 | 1 | 4 | 3 |
| (B) a | b | c | d |
| 1 | 2 | 3 | 4 |
| (C) a | b | c | d |
| 4 | 3 | 2 | 1 |

- (D) a b c d
3 4 1 2
52. Nanomaterials are usually considered to be materials with at least one external dimension that measures 100 nanometres or less. Consider the following statements regarding nanomaterials:
- They are toxic and carcinogenic.
 - Graphene is a well-known nanomaterial.
 - Nanoscale titanium dioxide can be used in sunscreen lotion.
 - Paints made from nano gold do not fade with time.
- Which of the above statements are correct?
- (ii) and (iii) only
 - (i) and (iv) only
 - (i), (iii) and (iv) only
 - All the statements are correct
53. Consider the following statements:
- Initially, ITER was called Indian Thermonuclear Experimental Reactor.
 - ITER is a nuclear fusion research and engineering megaproject.
 - ITER is a nuclear fission research and engineering megaproject.
 - ITER means 'the way' or 'the path' in Latin.
- Which of the above statements is/are correct?
- (i) only
 - (ii) only
 - (ii) and (iii) only
 - (ii) and (iv) only
54. Consider the following statements:
- Particular messenger RNA (mRNA) molecules, which are smaller than their average size, are called microRNA (miRNA).
 - miRNA are small, single-stranded, non-coding RNA molecules.
 - miRNA molecules play a crucial role in gene regulation.
 - People knew about miRNA since the early 1980s.
- Which of the above statements are correct?
- (i) and (ii) only
 - (ii) and (iii) only
 - (i) and (iv) only
 - (ii) and (iv) only
55. Consider the following statements:
- Indian scientist Satyendra Nath Bose developed the foundation of a quantum statistics called Bose-Einstein statistics.
 - A class of elementary sub-atomic particles called boson was named after Satyendra Nath Bose by P. A. M. Dirac.
 - Einstein used Satyendra Nath Bose's radical ideas to develop the theory of a phenomenon called Bose-Einstein condensate.
 - Satyendra Nath Bose was awarded India's second highest civilian award, the Padma Vibhushan.
- Which of the above statements are correct?
- All the statements are correct
 - (i), (ii) and (iii) only
 - (ii) and (iii) only
 - (i), (iii) and (iv) only
56. Consider the following statements:
- Dark oxygen was discovered in 2013 by Andrew Sweetman while conducting ship-based fieldwork in the Pacific Ocean.
 - Dark oxygen was discovered in 2013 by Andrew Sweetman while conducting research on dusty plasma in cometary tails.
 - Dark oxygen refers to molecular oxygen that is produced in the total darkness of the very deep ocean.
 - Dark oxygen refers to the medical oxygen cylinders, which are sold in the black market.
- Which of the above statements is/are correct?
- (i) only
 - (ii) only
 - (iv) only
 - (i) and (iii) only

57. If an object undergoes a uniform circular motion, then its
 (A) acceleration remains uniform
 (B) velocity changes
 (C) speed changes
 (D) velocity remains uniform
58. The tendency of a liquid drop to contract and occupy minimum area is due to
 (A) surface tension
 (B) viscosity
 (C) density
 (D) vapour pressure
59. Match the following books (List-I) with the names of the authors (List-II):
- | List-I | List-II |
|--|-----------------------|
| a. <i>India Against Itself: Assam and the Politics of Nationality</i> | 1. Udayon Misra |
| b. <i>Burden of History: Assam and the Partition-Unresolved Issues</i> | 2. Sanjib Baruah |
| c. <i>Writing on the Wall: Reflections on the North-East</i> | 3. Nani Gopal Mahanta |
| d. <i>Confronting the State: ULFA's Quest for Sovereignty</i> | 4. Sanjoy Hazarika |
- Select the correct answer using the codes given below.
- | | | | |
|-------|---|---|---|
| (A) a | b | c | d |
| 2 | 1 | 4 | 3 |
| (B) a | b | c | d |
| 1 | 2 | 4 | 3 |
| (C) a | b | c | d |
| 2 | 1 | 3 | 4 |
| (D) a | b | c | d |
| 1 | 2 | 3 | 4 |
60. Which of the following statements are true about Sustainable Development Goals (SDGs)?
- (i) SDGs, also known as the Global Goals, were adopted by the United Nations in 2015.
 (ii) It was a universal call to action to end poverty, protect the planet and ensure that by 2030 all people enjoy peace and prosperity.
 (iii) The 17 SDGs are integrated—they recognize that action in one area will affect outcomes in others and development must balance social, economic and environmental sustainability.
 (iv) The SDGs are designed to end poverty, hunger, AIDS and discrimination against women and girls.
- Select the correct answer using the codes given below.
- | |
|-------------------------------|
| (A) (i) and (ii) only |
| (B) (ii) and (iii) only |
| (C) (i), (ii), (iii) and (iv) |
| (D) (iii) and (iv) only |
61. Match the following authors (List-I) with the books (List-II):
- | List-I | List-II |
|--------------------------------------|---|
| a. Amartya Sen | 1. <i>The End of Poverty: Economic Possibilities for Our Time</i> |
| b. Abhijit Banerjee and Esther Duflo | 2. <i>The World is Flat</i> |
| c. Jeffrey D. Sachs | 3. <i>Poor Economics</i> |
| d. Thomas Friedman | 4. <i>Development as Freedom</i> |
- Select the correct answer using the codes given below.
- | | | | |
|-------|---|---|---|
| (A) a | b | c | d |
| 1 | 2 | 3 | 4 |
| (B) a | b | c | d |
| 4 | 3 | 1 | 2 |
| (C) a | b | c | d |
| 3 | 4 | 2 | 1 |

- (D) a b c d
1 3 2 4
62. Which of the following is not published by the UNDP?
- (A) The Human Development Index
(B) The Global Hunger Index
(C) The Gender Inequality Index
(D) The Global Multi-dimensional Poverty Index

63. The Government of Assam has introduced various schemes to help the poor, livelihood and self-employment. Match the following schemes (List-I) with their provisions (List-II):

List-I**List-II**

- | | |
|---|---|
| a. Orunodoi Scheme | 1. Pension scheme for senior citizens covering all eligible individuals in the State |
| b. Assam Arogya Nidhi Scheme | 2. A flagship scheme under Assam State Rural Livelihood Mission aiming to generate sustainable livelihood for women in rural areas by forming Self-Help Groups (SHGs) |
| c. Swahid Kushal Konwar Sarbajanin Briddha Pension Achoni | 3. A major poverty alleviation programme that provides monthly financial assistance to poor households through Direct Benefit Transfer (DBT) |

- d. Kanaklata Mahila Sabalikaran Yojana

4. Provides financial assistance for the treatment of serious diseases and injuries including those caused by natural or manmade disasters, for families with an annual income of less than ₹ 5 lakhs

Select the correct answer using the codes given below.

- (A) a b c d
3 4 1 2
(B) a b c d
4 3 2 1
(C) a b c d
3 1 2 4
(D) a b c d
1 4 2 3

64. Which of the following statements regarding post-development theory are true?

- (i) Arturo Escobar is one of the leading post-development scholars.
(ii) Post-development is an argument for alternatives to development.
(iii) Developing countries should be able to make decisions for themselves based on their own choices, on their own discourses.
(iv) Post-development theory argues that there is no universal mode of development to be followed.

Select the correct answer using the codes given below.

- (A) (i), (ii) and (iii) only
(B) (i), (ii), (iii) and (iv)
(C) (ii), (iii) and (iv) only
(D) (i), (ii) and (iv) only

65. The criteria for identifying Particularly Vulnerable Tribal Groups (PVTGs) are
- pre-agricultural level of technology
 - low level of literacy
 - economic backwardness
 - a declining or stagnant population
- Select the correct answer using the codes given below.
- (i) and (ii) only
 - (iii) and (iv) only
 - (ii), (iii) and (iv) only
 - (i), (ii), (iii) and (iv)
66. The Social Development Index (SDI) is a composite index which considers important dimensions of social development such as
- demographic parameters
 - health indicators and educational attainment
 - basic amenities and economic deprivation
 - social deprivation parameters
- Select the correct answer using the codes given below.
- (i) and (ii) only
 - (iii) and (iv) only
 - (i), (ii) and (iii) only
 - (i), (ii), (iii) and (iv)
67. Which of the following is a graphical representation of income distribution used to calculate the Gini coefficient?
- Pareto chart
 - Lorenz curve
 - Income-consumption curve
 - Kuznets curve
68. Which of the following is not a fiscal instrument?
- Cash Reserve Ratio (CRR)
 - Goods and Services Tax (GST)
 - Income Tax
 - Subsidy
69. Which of the following conducts the Annual Survey of Industries (ASI)?
- The Reserve Bank of India
 - The Department of Economic Affairs
 - The Labour Bureau
 - The Ministry of Statistics and Programme Implementation
70. An increase in the tax to GDP ratio of a country indicates which of the following?
- Larger fiscal ability
 - Equitable distribution of income
- Select the correct answer using the codes given below.
- (i) only
 - (ii) only
 - Both (i) and (ii)
 - Neither (i) nor (ii)
71. Arrange the following accidents/episodes in ascending (yearwise) order:
- Bhopal Gas Tragedy
 - Chernobyl Disaster
 - Fukushima Daiichi Disaster
 - Oil Spill in the Gulf of Mexico
- Select the correct answer using the codes given below.
- (i)-(ii)-(iv)-(iii)
 - (iii)-(ii)-(iv)-(i)
 - (iv)-(i)-(iii)-(ii)
 - (ii)-(iii)-(i)-(iv)
72. Consider the following National Parks of Assam and arrange them in ascending order with respect to the year of declaration as National Park:
- Raimona National Park
 - Manas National Park
 - Dibru-Saikhowa National Park
 - Nameri National Park
- Select the correct answer using the codes given below.
- (i)-(ii)-(iii)-(iv)
 - (ii)-(iv)-(iii)-(i)
 - (iii)-(i)-(iv)-(ii)
 - (ii)-(i)-(iv)-(iii)
73. Match List-I with List-II:
- | List-I | List-II |
|---------------|---|
| a. Mulch | 1. Variation in species composition across different habitats |

- b. Niche 2. Movement of nutrient-rich bottom water to ocean's surface
- c. Beta diversity 3. A protective cover on the ground, may be of dried leaves
- d. Upwelling 4. The functional role and position of a species in an ecosystem
- Select the correct answer using the codes given below.
- | | | | |
|-------|---|---|---|
| (A) a | b | c | d |
| 2 | 3 | 4 | 1 |
| (B) a | b | c | d |
| 3 | 4 | 1 | 2 |
| (C) a | b | c | d |
| 4 | 3 | 2 | 1 |
| (D) a | b | c | d |
| 4 | 2 | 3 | 1 |
74. According to the Assam State Action Plan on Climate Change (2015-2020), which of the following temperature and rainfall changes has occurred in Assam during the period 1951-2010?
- (A) Annual mean temperature and annual rainfall have both increased
- (B) Annual mean temperature and annual rainfall have both decreased
- (C) Annual mean temperature has increased, while annual rainfall has decreased
- (D) No noticeable changes in temperature and rainfall trends
75. Bioremediation using fungi is known
- (A) mycoremediation
- (B) phycoremediation
- (C) phytoremediation
- (D) entomoremediation
76. The global warming potential of a gas is decided on the basis of
- (A) the amount of total long-wave radiation a greenhouse gas can trap
- (B) the amount of total long-wave radiation a greenhouse gas can trap in comparison to CO_2 over a period of 100 years
- (C) the amount of total long-wave radiation a greenhouse gas can trap in comparison to CH_4 over a period of 100 years
- (D) the amount of total long-wave radiation a gas can trap over a period of 1 year
77. Which of the following soil horizons is present in the soil of forests but absent in the cultivated fields?
- (A) O horizon (B) A horizon
- (C) B horizon (D) C horizon
78. The 'Gadgil Committee Report' and 'Kasturirangan Committee Report' are related to
- (i) Ganga Action Plan
- (ii) inter-linking of Indian rivers
- (iii) protection of Western Ghats
- (iv) planning of ecozones of India
- Select the correct answer using the codes given below.
- (A) (iv) only (B) (i) and (ii) only
- (C) (iii) only (D) (ii) only
79. Which organization/department is the custodian of foreign exchange reserves in India?
- (A) The Exim Bank
- (B) The RBI
- (C) The Directorate General of Foreign Trade
- (D) The NITI Aayog
80. As per the NITI Aayog's multi-dimensional poverty index (as per the latest statistics for 2022-23), the percentage of population in Assam classified as poor is
- (A) 36.97% (B) 26.37%
- (C) 14.47% (D) 13.73%

81. What are the main objectives of the 'Assam Millets Mission'?
- (i) Raise nutrition quotient
 - (ii) Increase farmer's income
 - (iii) Contribute to crop diversification
 - (iv) Employment generation
- Select the correct answer using the codes given below.
- (A) (i) and (ii) only
 - (B) (i), (ii) and (iii) only
 - (C) (i) and (iv) only
 - (D) (i), (ii), (iii) and (iv)
82. Which of the following is not a dimension of Social Progress Index?
- (A) Basic human need
 - (B) Foundation of well-being
 - (C) Opportunity
 - (D) Per capita income
83. In which year were the Assam Plantations Labour Rules established?
- (A) 1951
 - (B) 1971
 - (C) 1953
 - (D) 1956
84. Which one of the following is the purpose of 'UDAY'?
- (A) Providing technical and financial assistance to start-up entrepreneurs in the field of renewable sources of energy
 - (B) Providing electricity to every household in the country
 - (C) Replacing the coal-based power plants with natural gas, nuclear, solar, wind and tidal power plants over a period of time
 - (D) Providing for financial turnaround and revival of power distribution companies
85. Economists Daron Acemoglu, Simon Johnson and James A. Robinson won the Nobel Prize in 2024 in Economics. They were honoured for their work on
- (A) environment
 - (B) banks and financial crises
 - (C) institution
 - (D) labour market
86. Who among the following won the 'Golden Bat' in the ICC Champions Trophy, 2025?
- (A) Rachin Ravindra
 - (B) Shreyas Iyer
 - (C) J. E. Root
 - (D) B. M. Duckett
87. What is the time period of 16th Finance Commission of India which is chaired by Dr. Arvind Panagariya?
- (A) 1st April, 2025 to 31st March, 2030
 - (B) 1st April, 2026 to 31st March, 2031
 - (C) 1st January, 2025 to 31st December, 2030
 - (D) 1st January, 2026 to 31st December, 2031
88. Which of the following is/are active Indian Research Station(s) in Antarctica continent?
- (i) Dakshin Gangotri
 - (ii) Maitri
 - (iii) Bharati
 - (iv) Tushar
- Select the correct answer using the codes given below.
- (A) (i) only
 - (B) (ii) only
 - (C) (ii) and (iii) only
 - (D) (i), (ii), (iii) and (iv)
89. Jyoti Prasad Agarwala said in a speech in 1931, "Assamese youths would follow Bhagat Singh". Where did he say this?
- (A) Na-Duar
 - (B) Chariduar
 - (C) Chaiduar
 - (D) Tezpur
90. Who delivered the welcome address in the Hindu Mahasabha Conference, which was held in 1926?
- (A) Tarun Ram Phukan
 - (B) Gopinath Bordoloi
 - (C) Chandra Nath Sarmah
 - (D) Pitambar Deva Goswami

91. Asom Sangrakshini Sabha was founded by
 (A) Chandra Nath Sarmah
 (B) Gopinath Bordoloi
 (C) Kuladhar Chaliha
 (D) Ambikagiri Raichoudhury
92. Maitri Ashram, later renamed as Kasturba Ashram, was established at Sarania Hills, Guwahati by
 (A) Amal Prabha Das
 (B) Vinoba Bhawe
 (C) Pushpalata Das
 (D) Chandraprabha Saikiani
93. Who among the following martyrs died in police firing at Dhekiajuli police station on 20th September, 1942, who stood at the front, heading the 'Death Squad'?
 (A) Manbar Nath (B) Tileswari Barua
 (C) Ratan Kachari (D) Mangal Kurku
94. Assertion (A): Purnananda Burhagohain created a standing army.
 Reason (R): The king was plotting to kill the Burhagohain.
 Select the correct answer from the options given below.
 (A) Both (A) and (R) are correct and (R) is the correct explanation for (A)
 (B) Both (A) and (R) are correct, but (R) is not the correct explanation for (A)
 (C) (A) is correct, but (R) is wrong
 (D) (A) is not correct, but (R) is correct
95. Which of the following statements regarding Ahom-Mughal conflict during 1616-1639 is/are false?
 (i) Ahom king came to be regarded as the Raja of Assam.
 (ii) The defeat of the Mughals had been dramatically described in the Baharistan-i-Ghaibi.
 (iii) A Barphukan was appointed with headquarters at Kajali.
 (iv) The main grounds for the conflict were in boundary disputes and commercial relations.
- Select the correct answer using the codes given below.
 (A) (ii) and (iii) only
 (B) (i) and (iv) only
 (C) (iii) only
 (D) All the statements are true
96. Which of the following statements regarding first Assamese film Joymoti is/are false?
 (i) The film was produced by Chitralkha Movietone.
 (ii) The film was based on a drama by Padmanath Gohain Baruah.
 (iii) The artists were drawn from respectable families.
 (iv) The film was the first Indian film to delve into 'realism'.
 Select the correct answer using the codes given below.
 (A) (i) and (ii) only (B) (ii) and (iv) only
 (C) (ii) only (D) (iii) only
97. Match the following Buranjis (List-I) with the period they deal with (List-II):
- | List-I | List-II |
|---------------------------------|---|
| a. <i>Satsari Assam Buranji</i> | 1. Kamaleswar Singha to Purandar Singha |
| b. <i>Kali Bharat Buranji</i> | 2. 1679-1858 |
| c. <i>Tungkhungia Buranji</i> | 3. 1681-1810 |
| d. <i>Weissali Buranji</i> | 4. Burmese invasion of Assam |
- Select the correct answer using the codes given below.
 (A) a b c d
 1 2 4 3
 (B) a b c d
 2 4 1 3
 (C) a b c d
 2 1 3 4
 (D) a b c d
 1 2 3 4

98. Match the following personalities (List-I) with the associations/organizations they were engaged with during 1920s (List-II):
- | List-I | List-II |
|-----------------------------|--|
| a. Rohinikanta Hati Baruah | 1. Assam Branch of All India Spinners' Association |
| b. Krishna Nath Sarmah | 2. APCC (General Secretary) |
| c. Tarun Ram Phukan | 3. Assam Branch of Swarajya Party |
| d. Ambikagiri Rai-choudhury | 4. Assam Jatiya Mahasabha |
- Select the correct answer using the codes given below.
- (A) a b c d
1 2 3 4
- (B) a b c d
2 4 1 3
- (C) a b c d
2 1 3 4
- (D) a b c d
1 2 4 3
99. Which of the following statements regarding Buddhism in Assam are true?
- (i) Buddhism existed in Assam before the visit of Hiuen Tsang.
(ii) Dhitika became responsible for the spread of Buddhism in Assam.
(iii) Asvabhava preached Mahayana cult in Assam.
(iv) According to a tradition, the older shrine at Hajo was a great Chaitya.
- Select the correct answer using the codes given below.
- (A) (i), (ii), (iii) and (iv)
(B) (ii) and (iv) only
(C) (i), (iii) and (iv) only
(D) (i) and (iv) only
100. Arrange the following works chronologically according to their year of publication:
- (i) Grammatical Notices of the Assamese Language
(ii) A Grammar of the Assamese Language
(iii) A Dictionary in Assamese and English
- Select the correct answer using the codes given below.
- (A) (i)-(ii)-(iii) (B) (i)-(iii)-(ii)
(C) (iii)-(ii)-(i) (D) (ii)-(i)-(iii)



MCQs Answers : Civil Service Prelims

1 (A)	2 (B)	3 (D)	4 (C)	5 (B)	6 (A)	7 (B)	8 (C)	9 (B)	10 (A)
11 (C)	12 (A)	13 (B)	14 (C)	15 (B)	16 (B)	17 (B)	18 (A)	19 (D)	20 (C)
21 (A)	22 (A)	23 (B)	24 (A)	25 (B)	26 (D)	27 (B)	28 (A)	29 (C)	30 (A)
31 (C)	32 (A)	33 (D)	34 (D)	35 (B)	36 (A)	37 (D)	38 (D)	39 (C)	40 (D)
41 (B)	42 (C)	43 (C)	44 (C)	45 (D)	46 (B)	47 (C)	48 (D)	49 (C)	50 (A)
51 (A)	52 (D)	53 (D)	54 (B)	55 (A)	56 (D)	57 (B)	58 (A)	59 (A)	60 (C)
61 (B)	62 (B)	63 (A)	64 (B)	65 (D)	66 (D)	67 (B)	68 (A)	69 (D)	70 (A)
71 (A)	72 (B)	73 (B)	74 (C)	75 (A)	76 (B)	77 (A)	78 (B)	79 (B)	80 (C)
81 (B)	82 (D)	83 (D)	84 (D)	85 (C)	86 (A)	87 (B)	88 (C)	89 (A)	90 (D)
91 (D)	92 (A)	93 (A)	94 (B)	95 (D)	96 (C)	97 (D)	98 (C)	99 (A)	100 (D)

Previous Year Civil Service Mains Question Paper

General Studies-I

Full Marks : 250

Time : 3 hours

QUESTION PAPER SPECIFIC INSTRUCTIONS

*Please read each of the following instructions carefully
before attempting questions*

There are **TWENTY** questions printed in **ENGLISH** and **ASSAMESE**.

All questions are compulsory.

The number of marks carried by a question/part is indicated against it.

Answers to Question Nos. **1** to **10** should be in 150 words each, whereas answers to Question Nos. **11** to **20** should be in 250 words each.

Keep the word limit indicated in the questions in mind.

Any page or portion of the page left blank in the Question-cum-Answer (QCA) Booklet must be clearly struck off.

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- | | |
|--|--|
| 1. Write an essay on the tradition of manuscript painting in Assam.
(Answer in 150 words) 10 | 6. Some islands of the world are under high risk of submergence due to the rise of sea level. Discuss how such an impending situation can be addressed.
(Answer in 150 words) 10 |
| 2. Trace the nature and course of Chipko Movement. What are the other dimensions the movement had besides environment?
(Answer in 150 words) 10 | 7. Discuss the role of rice cultivation in the economy and culture of North-East India.
(Answer in 150 words) 10 |
| 3. What were the main features of the British Land Revenue Policy? Analyze its impact on the peasantry in Assam.
(Answer in 150 words) 10 | 8. Are slums a social issue? Discuss the challenges of slum dwellers in India.
(Answer in 150 words) 10 |
| 4. "The participation of Assamese women in the freedom struggle brought about a new social and political consciousness among them." Analyze the statement.
(Answer in 150 words) 10 | 9. Discuss the role of B. R. Ambedkar in providing a democratic framework for the empowerment of the marginal social groups in India.
(Answer in 150 words) 10 |
| 5. Give a geographical outline of Antarctica as a continent and analyze its environmental significance in the contemporary context.
(Answer in 150 words) 10 | 10. What is human development? What are the indicators to measure human development? To what extent do you think these indicators can contribute to an inclusive measure of human development?
(Answer in 150 words) 10 |

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|---|--|
| <p>11. Analyze the significance and implications of the States Reorganization Act of 1956 with reference to North-East India. (Answer in 250 words) 15</p> <p>12. Highlight the recommendations of the Kothari Education Commission (1964-66) that have also been addressed by the National Education Policy, 2020. (Answer in 250 words) 15</p> <p>13. Critically assess the socio-political circumstances leading to the demographic change in Assam during post-Independence period. (Answer in 250 words) 15</p> <p>14. Discuss the economic and environmental significance of forest resources in North-East India focusing on their sustainable use. (Answer in 250 words) 15</p> <p>15. Examine how globalization has changed the conventional ideas and principles of industrial location and development. (Answer in 250 words) 15</p> | <p>16. Discuss the importance of tourism as an evolving industry and explain its potential and challenges in North-East India. (Answer in 250 words) 15</p> <p>17. Discuss the feasibility and sustainability of river restoration in less developed countries of the world. (Answer in 250 words) 15</p> <p>18. The cultural heritage and traditions of tribal communities in North-East India are facing a serious crisis today. Suggest some measures for their preservation and promotion. (Answer in 250 words) 15</p> <p>19. Discuss the minimum standards of intellectual property rights imposed by the Trade-Related Aspects of Intellectual Property Rights (TRIPS). What are the challenges towards protection of indigenous and traditional knowledge? (Answer in 250 words) 15</p> <p>20. Critically discuss the role of microfinance in economically empowering rural women in Assam. (Answer in 250 words) 15</p> |
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Previous Year Civil Service Mains Question Paper

General Studies–II

Full Marks : 250

Time : 3 hours

QUESTION PAPER SPECIFIC INSTRUCTIONS

*Please read each of the following instructions carefully
before attempting questions*

There are **TWENTY** questions printed in **ENGLISH** and **ASSAMESE**.

All questions are compulsory.

The number of marks carried by a question/part is indicated against it.

Answers to Question Nos. **1 to 10** should be in 150 words each, whereas answers to Question Nos. **11 to 20** should be in 250 words each.

Keep the word limit indicated in the questions in mind.

Any page or portion of the page left blank in the Question-cum-Answer (QCA) Booklet must be clearly struck off.

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|--|---|
| 1. What are the key provisions and constitutional changes made by the Women's Reservation Bill, 2023?
(Answer in 150 words) 10 | 5. What are the main objectives of Gunotsav scheme? How has it contributed to strengthening primary education in Assam?
(Answer in 150 words) 10 |
| 2. "In moment when democratic institutions weaken, a vigilant judiciary becomes not just a guardian of the Constitution but a custodian of the people's trust." In the light of the statement, critically evaluate the strategic role of the Supreme Court of India.
(Answer in 150 words) 10 | 6. Discuss the importance of BRICS as an economic bloc.
(Answer in 150 words) 10 |
| 3. "Delimitation, as outlined under Section 8A of the Representation of the People Act (1950), aims to adjust constituency boundaries based on population shifts to ensure fair representation." In the light of this, discuss how the delimitation process affects the political representation of indigenous communities in Assam.
(Answer in 150 words) 10 | 7. What is 'String of Pearls' strategy of China? How does this strategy challenge India's maritime security?
(Answer in 150 words) 10 |
| 4. Critically analyze how Atal Amrit Abhiyan has made healthcare affordable for poorer sections of the society.
(Answer in 150 words) 10 | 8. How has the 'Beti Bachao Beti Padhao' scheme led to the well-being and empowerment of the girl child in India?
(Answer in 150 words) 10 |
| | 9. What are the focus areas of 'Digital India'? Discuss the important provisions of the Common Services Centres (CSC) 2.0.
(Answer in 150 words) 10 |
| | 10. "The civil servants are dictated by the rules and procedures." Examine the statement in the light of the rights of civil servants in India.
(Answer in 150 words) 10 |

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| <p>11. "The doctrine of basic structure safeguards the spirit of the Constitution against majoritarian impulses in India." Examine the role of the judiciary in evolving the doctrine of basic structure of the Indian Constitution. (Answer in 250 words) 15</p> <p>12. Critically analyze the effectiveness of the Finance Commission in promoting fiscal equity and strengthening financial relations among the Centre, States and Local Bodies. (Answer in 250 words) 15</p> <p>13. Evaluate to what extent the National Green Tribunal (NGT) has succeeded in ensuring environmental justice in India. How does its functioning reflect the tensions among ecological sustainability, economic development and democratic accountability? (Answer in 250 words) 15</p> <p>14. What is the Sixth Schedule of the Indian Constitution? Reflect on the role of the Governor in the areas under the Sixth Schedule. (Answer in 250 words) 15</p> | <p>15. What are the main objectives of the Assam State Action Plan on Climate Change (SAPCC)? What are the key sectors that face climate vulnerabilities in Assam? (Answer in 250 words) 15</p> <p>16. "Despite tea being a major plantation industry in India, tea estates are in a deplorable condition." Evaluate the effectiveness of Government policies and interventions for the improvement of the Assam tea estate workers. (Answer in 250 words) 15</p> <p>17. Describe the salient features of the Foreign Contribution (Regulation) Amendment (FCRA) Act, 2020 and its implications on the development of industries in India. (Answer in 250 words) 15</p> <p>18. Discuss the implications of political turmoil in Bangladesh on India's foreign policy. (Answer in 250 words) 15</p> <p>19. How does BIMSTEC contribute towards accelerating regional cooperation in South-East Asia? Explain the significance of BIMSTEC in promoting economic development in North-East India. (Answer in 250 words) 15</p> <p>20. Analyze the main factors shaping relations between India and the European Union. (Answer in 250 words) 15</p> |
|---|--|

