

Computer programming :-

Some Important Questions :-

1. Q. C language has been developed by _____
Ans:- Dennis Ritchie.

2. Q. Mention the basic data types used in C language. (2014, 2015)

Ans:- char, int, float, and double.

3. Q. A variable declared as long int occupies _____ bytes of memory.

Ans:- 4 bytes.

4. Q. If 'a' is an integer variable, then $a = 5/2$ will return value _____. (2014)

Ans:- 2.

5. Q. Bitwise operators are for manipulation of _____ in bit level.

Ans:- data stored.

6. Q. Define nibble and byte.

Ans:- One nibble is 4 bits and one byte is 8 bits.

7. Q. Explain ternary operator.

Ans:- Ternary operator is used to evaluate a condition and select ~~one~~ and assign a value to a variable depending on the value of the condition. It has the following form:

Variable = (condition) ? value 1 : value 2 ;

example:-

big = (a > b) ? a : b ;

8.8:- What is the purpose of type declaration in C?

Ans:- All variables used in a C program are declared using the appropriate data types to enable the compiler to allocate the required number of bytes in RAM to store values of these variables in memory.

9.9:- What are library functions? Mention any four library functions in C? (2013, 14, 15)

Ans:- Library functions are built in programs available along with the compiler which perform some standard mathematical operations.

Any four library functions are:

- sqrt(x) - is used to find square root of x.
- fabs(x) - " " " " get absolute value of x.
- sin(x) - " " " " find sine of x.
- pow(x,y) - " " " " find x^y.

10.9:- What are the logical operators available in C?

Ans:- && - logical AND
|| - logical OR
! - logical NOT

11.8:- How does x++ differ from ++x?
Ans:- x++ is a post-fix increment operator. e.g. if m=25; k=m++ ; it assigns the value 25 to k and thereafter increases the value of m to 26.

$++x$ is a prefix increment operator. eg. if $m=15$; $k=++m$; if increases the value m to 16 and thereafter assigns 16 to k .

12.Q:- Discuss the difference betn assignment and equality.

Ans:- Assignment means the process of assigning the value of a variable/expression from the right side of assignment operator to the left side variable. The assignment operator in C is =.

Equality means the process of checking the value of the left side variable/expression with the right side variable. The equality operator in C is ==.

13.Q:- What is an identifier? (2013, 2014)

Ans:- An identifier is a name used to identify a variable, function, symbolic constant and so on. For example, sigma, x_2 , sum etc.

14.Q:- Write the relational operators that are commonly used in C.

Ans:- $<$, $>$, $<=$, $>=$, $=$, $!=$.

15.Q:- In C language, a comment starts with the symbol _____ and ends with _____.

Ans:- $/*$ and $*/$.

16.Q:- Discuss the increment operator in C.

Ans:- The increment operator ($++$) is used to increase the value of a variable by 1. It can be written as post-fix or prefix to a variable, eg. $a++$ or $++a$.

17. Q: Discuss the decrement operator in C.
 Ans: The decrement operator (--) is used to reduce the value of a variable by 1. It can be written as post-fix or prefix to the variable.
 e.g. --a or a--

18. Q: What is the purpose of a comma operator in C?
 Ans: The comma operator is used to link related expressions together to make the program more compact.

19. Q: What do you mean by casting? Give an example. (2014)
 Ans: A variable declared in a specific data type can be converted to another data type. This process is called casting. For example,
 $y = (\text{float}) m/2;$

20. Q: Give the equivalent C expression for $e^{x+y} - \sin(\sqrt{1+x+ny}) + \log a$.

Ans: $\exp(x+y) - \sin(\text{sqrt}(fabs(x+n*y))) + \log(2*a)$
 21. Q: For 9% the output is _____
 Ans: 1.

22. Q: $i+1$ can also be written as _____
 Ans: $i = i+1$.

23. Q: _____ is the operator which represents bitwise exclusive OR.
 Ans: ^

Q: What is string/character constant?
 Ans: String of characters enclosed in single or double quote is called string constant.

24.Q:- What is the use of size of operator?
 Ans:- The size of operator is used to find the no. of bytes occupied by a data item in the memory.

25.Q:- What is associativity and why is it important?
 Ans:- Some of the operators of the same level of precedence are evaluated from left to right or right to left. This process is called associativity.

e.g. $s = s + x$; associativity left to right.

$s + = x$; " right to left.

It is important to know the associativity to avoid any logical error in evaluating an expression and also to write the expression in a more compact and more efficient manner.

26.Q:- What is an operator? What is an operand?

Ans:- An operator performs an operation like addition, subtraction and so on and produces a value. Variables and constants upon which operations are performed are called operands.

example:
 $y = a + b$;
 operator
 operands

27.Q:- What do you mean by case-sensitive? Is C a case-sensitive language?

Ans:- Case-sensitive means upper and lower case alphabets are considered differently. Example, sum and SUM are considered differently. C language is a case-sensitive language.