

C Programming Viva Questions Answer

1. What is Compiler?

Answer: Compiler is a program that converts human readable code (source code) into machine readable code, this process is called compilation.

2. What is Interpreter?

Answer: Interpreter converts human readable code (source code) into intermediate code and then this intermediate code is executed line by line.

3. What is Assembler?

Answer: Assembler is a program that converts assembly level language (low level language) into machine level language.

4. What is Protocol?

Answer: Protocol is nothing but a set of rules to be followed by a programmer.

5. What is IDE in C?

Answer: IDE is nothing but integrated development environment. IDE is a tool that provides user to create, compile and execute C program. For example: Turbo C++, DevC++. These provide integrated development environment.

6. What are Instructions?

Answer: In C instructions are the statements which tells computer to perform the specific task.

7. What is C Programming Language?

Answer: C is a high level programming language. It is used to develop system software and application software.

8. C language has been developed in which language?

Answer: C language has been developed using assembly language.

9. What is the difference between Text Files and Binary Files?

Answer: Text file contain data that can be easily understood by human. It includes letters, numbers and other characters. On the other hand, binary files contain 1s and 0s that only computers can interpret.

10. Is C a Structured Programming Language?

Answer: Yes, C language is structured language.

11. C is successor of which programming language?

Answer: B

12. What is Algorithm?

Answer: An algorithm refers to the step by step instructions written to solve any problem.

13. What is Flowchart?

Answer: A flowchart is a diagrammatic or symbolic representation of an algorithm. It uses various symbols to represent the operations to be performed.

14. What are Library Functions?

Answer: Library functions are predefined functions and stored in .lib files.

15. What is a Program?

Answer: A computer program is a collection of the instructions necessary to solve a specific problem.

16. What is Object Code?

Answer: Compilation process translates source code into binary language. This binary language code is known as object code.

17. What is Executable Code?

Answer: This code contains object code and definition of predefined function from library. This code is written in binary language.

18. What is void in C language?

Answer: Void is an empty data type that has no value. We use void data type in functions when we don't want to return any value to the calling functions.

19. What is the meaning of Header File? Name some Header Files.

Answer: Header files contain declaration of predefined functions. We can use any number of header files in our program as per the requirement of predefined functions. Some header files are: stdio.h, conio.h, math.h, stdlib.h, string.h, graphics.h

20. Can I create a customized Header File in C language?

Answer: It is possible to create a new header file. Create a file with function prototypes that need to be used in the program. Include the file in the '#include' section in its name.

21. Explain the use of comma operator (,).

Answer: Comma operator can be used to separate two or more expression.

22. What is the use of printf() function?

Answer: The printf() function is used to print the integer, character, float and string values on to the screen or console. It is a predefined function.

23. What is the use of scanf() function?

Answer: The scanf() function is used to take input from the user or read some values from screen (or console). It is a predefined function.

24. What is Console?

Answer: Console is known as output screen through which user interacts with the source code.

25. What is #include?

Answer: It is a pre-processor directive. It is used to include any header file in our program.

26. What is case sensitivity in C language?

Answer: Case sensitivity means upper case and lower case letters are treated differently in C language.

27. Who designed C Programming Language?

Answer: Dennis M Ritchie

28. What is Debugging?

Answer: Debugging is the process of identifying errors within a program.

29. What is Syntax Error?

Answer: Syntax errors occur at the time of compilation. It comes when rules of programming language are not followed properly.

30. What is Logical Error?

Answer: Logical errors occur at the time of execution. It comes when logics are not properly implemented in the program.

31. Why we use void keyword before main()?

Answer: Void is a data type. We can use any data type before main(). The data types are used to denote return type of main() function. If we are using void then it gives instruction to compiler that main() function will not return any value.

32. It is possible to have more than one main() function in a C program?

Answer: The function main() can appear only once. The program execution starts from main() function.

33. Can the curly brackets{} be used to enclose a single line of code?

Answer: Curly brackets{} are mainly used to group several lines of code. It will still work without error if you used it for a single line. Some programmers prefer this method as a way of organizing code to make it look clear, especially in conditional statement.

34. Can a program be compiled without main() function?

Answer: Yes, it can be but cannot be executed, as the execution require main() function definition.

35. Why we use clrscr() function?

Answer: It is used to clear console or screen. It is declared in conio.h file. It is predefined function.

36. What are Comments?

Answer: Comments are a great way to put some remarks or description in a program. It can serve as a reminder on what the program is all about. Comments begin with /* and ended by */ characters. It can be single line, or can even several lines. It can be placed anywhere in the program.

37. What do you mean by Syntax?

Answer: Syntax means predefined rules of any programming language.

38. What is structure of C program?

Answer: C program contains documentation section, link section, definition section, global declaration section, main function and other user defined functions.

39. Can we declare variable anywhere in C program?

Answer: No.

40. What are Format Specifiers? Why we use it?

Answer: Format specifiers are used to specify type of value which we are going to read through scanf() function and to print through printf() function. Some format specifiers are: int – %d, float – %f, char – %c.

41. What is Garbage Value?

Answer: Garbage value means unused value. When we declare a variable compiler automatically provides some value which is useless for programmer so this value is known as garbage value.

42. What is the difference between getch() and getche()?

Answer: The getch() function reads a single character from the keyboard. It doesn't use any buffer, so entered data will not be displayed on the output screen.

The getche() function reads a single character from the keyboard, but data is displayed on the output screen. Press Alt+f5 to see the entered character.

43. Why is C called a mid-level programming language?

Answer: C is called a mid-level programming language because it binds the low level and high -level programming language. We can use C language as a System programming to develop the operating system as well as an Application programming to generate menu driven customer driven billing system.

44. What is the difference between the = symbol and == symbol?

Answer: The = symbol is often used in mathematical operations. It is used to assign a value to a given variable. On the other hand, the ==

symbol, also known as "equal to" or "equivalent to", is a relational operator that is used to compare two values.

45. What is || operator and how does it function in a program?

Answer: The || is also known as the OR operator in C programming. When using || to evaluate logical conditions, any condition that evaluates to TRUE will render the entire condition statement as TRUE.

46. Not all reserved words are written in lowercase. TRUE or FALSE?

Answer: FALSE. All reserved words must be written in lowercase; otherwise the C compiler would interpret this as unidentified and invalid.

47. What is the difference between the expression "++a" and "a++"?

Answer: In the first expression, the increment would happen first on variable a, and the resulting value will be the one to be used. This is also known as a prefix increment. In the second expression, the current value of variable a would be the one to be used in an operation, before the value of an itself is incremented. This is also known as postfix increment.

48. What is wrong with this program statement? void = 10;

Answer: The word void is a reserved word in C language. You cannot use reserved words as a user-defined variable.

49. Is it possible to have a function as a parameter in another function?

Answer: Yes, that is allowed in C programming. You just need to include the entire function prototype into the parameter field of the other function where it is to be used.

50. What is recursion in C?

Answer: When a function calls itself and this process is known as recursion. The function that calls itself is known as a recursive function.

51. Differentiate between for loop and a while loop? What are it uses?

Answer: For executing a set of statements fixed number of times we use for loop while when the number of iterations to be performed is not known in advance we use while loop

52. What are built in functions?

Answer: The functions that are predefined and supplied along with the compiler are known as builtin functions. They are also known as library functions.

53. What is typecasting?

Answer: Typecasting is a way to convert a variable/constant from one type to another data type.

54. What is void in C?

Answer: Void is an empty data type that has no value. We use void data type in functions when we don't want to return any value to the calling functions.

55. What is token in C language?

Answer: Each and every smallest individual unit in a C program is known as tokens.

56. What are operators?

Answer: Operators are symbol which take one or more operands or expression and perform arithmetic or logical computation.

57. What are operands?

Answer: Operands are variables or expressions which are used in operators to evaluate the expression.

58. What are expressions?

Answer: Combination of operands and operators from an expression.

59. Which bitwise operator is suitable for checking a particular bit is ON or OFF?

Answer: Bitwise AND operator.

60. Can we assign a float variable to a long integer variable?

Answer: Yes, with loss of fractional part.

61. What is operator precedence?

Answer: Operator precedence defines the order in which C evaluate expressions.

62. What is associativity?

Answer: The operators of the same precedence are evaluated either from 'left to right' or from 'right to left', depending on the level. This is known as the associativity property of an operator.

63. What is the difference between pre increment and post increment operator?

Answer: Pre increment operator is used to increment variable value by 1 before assigning the value to the variable. Post increment operator is used to increment variable value by 1 after assigning the value to the variable.

64. What is constant?

Answer: Constant is a value that does not change during the program execution. A constant used in C does not occupy memory.

65. What do you mean by a variable?

Answer: Variables are simply names used to refer to some location in memory, a location that holds a value with which we are working.

66. What is a keyword?

Answer: Keywords are building blocks for program statements and have fixed meanings and these meaning cannot be changed

67. What is difference between declaration and definition?

Answer: During declaration we just specify the type and no memory are allocated to the variable. But during the definition, an initial value is assigned and memory is allocated to the variable.

68. What is loop?

Answer: Loops are used to repeat a block of code.

69. What is nested loop?

Answer: A nested loop a loop within loop, an inner loop within the body of an outer loop.

70. What is infinite loop?

Answer: A loop running continuously for an indefinite number of times is called the infinite loop.

71. What is break statement?

Answer: The break statement is used to exit the current loop before its normal ending.

72. Which keyword is used to perform unconditional branching?

Answer: goto.

73. What is the use of goto statement?

Answer: goto statement is used to transfer the normal flow of a program to the specified label in the program.

74. Every loop control structure uses three important parts, what are those?

Answer: 1) Initialization: It provides beginning value of loop. 2) Termination condition: Termination condition specifies the ending of the loop. 3) Increment/Decrement: It increases or decreases loop counter.

75. What is an array?

Answer: An array is a collection of values of the same data type.

76. What are merits of array in C?

Answer: We can easily access each element of array. Not necessary to declare too many variables. Array elements are sorted in continuous memory location.

77. What are demerits of array in C?

Answer: Wastage of memory space. We cannot change size of array at the run time. It can store only similar type of data.

78. What is the meaning of base address of the array?

Answer: The starting address of the array is called as the base address of the array.

79. Can array subscripts have negative value in C?

Answer: No, array subscripts should not have a negative value. Always, it should be positive.

80. Why array index always start with 0?

Answer: If we start array index by 1 then we will not be able to access first location of an array.

81. What is stream?

Answer: A stream is a source of data or destination of data that may be associated with a disk or other Input/Output (I/O) device.

82. What is source stream or input stream?

Answer: The source stream provides data to a program and it is known as input stream.

83. What is destination stream or output stream?

Answer: The destination stream receives the output from the program and is known as output stream.

84. What is function?

Answer: A large program is subdivided into a number of smaller programs or subprogram. Each subprogram is called function. A function is a set of statements to perform a specific task.

85. What is an argument?

Answer: An argument is an entity used to pass data from the calling function to a called function.

86. What are formal arguments?

Answer: Formal arguments are the arguments available in the function definition.

87. What are actual arguments?

Answer: Actual arguments are available in the function call.

88. How many types of functions are there in C language?

Answer: There are two types of functions: 1) predefined function, 2) User defined function.

89. What is the importance of user defined functions?

Answer: 1) Reusability of code. 2) Debugging becomes easy and fast. 3) Compilation and execution time is reduced.

90. What is the default function call method?

Answer: By default the functions are called by value.

91. How many parts are there in every function?

Answer: There are three parts in every function: 1) Function Declaration, 2) Function Calling, 3) Function Definition.

92. In header files whether functions are declared or defined?

Answer: Functions are declared within header file and defined in library (lib).

93. What is prototype of a function?

Answer: Prototype means function's declaration. It tells return type, function name, and arguments type.

94. How many arguments can be passed to a function in C?

Answer: Any number of arguments can be passed to a function. There is no limit on this. Function arguments are stored in stack memory rather than heap memory. Stack memory allocation is depending on the operating system. So, any number of arguments can be passed to a function as much as stack has enough memory. Program may crash when stack overflows.

95. Can we have variable with same name in different functions?

Answer: Yes.

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