Choose the correct alternative:

1. Which of the following is not an input device [A]

   a) **plotter** b) scanner c) keyboard d) mouse

2. Which of the following is the correct order of operators for the evaluation for the expression?

   a. z = x + y * z/4 % 2-1 [A]

   a) *** / % + - =** b) - %? * + = c) / * % - + = d) * / % - + =

3. The paralellogram is used to represent ___ type of statements in flow charts [A]

   a) **Input/Output** b) Functions c) Decision d) Processing

4. Which of the following statement is syntactically correct [D]

   a) printf("%d", &a); b) scanf("%d", a); c) scanf("%d", #a); d) **scanf("%d", &a);**

5. Which of the following is not a translator program [A]

   a) **linker** b) assembler c) interpreter d) compiler

6. Object Code produced by which of the following phase [C]

   a) preprocessing b) linking c) **compilation** d) editing

7. What type of errors are checked during compilation [D]

   (a) logical errors (b) divide by zero error (c) run - time errors (d) **syntax errors**

8. What will be the binary value of B (Hexa decimal) [B]

   a) 1001 b) **1011** c) 1100 d) 1101

9. Which of the following is not a translator program [A]

   a) **Linker** b) Assembler c) Compiler d) Interpretor

10. The program fragment [D]

    int a=5, b=2; printf("%d",a+++++b);

    a) prints 7 b) prints 8 c) prints 9 d) **compiler error**

11. What will be sum of the binary numbers 1111 and 11001 [A]

    a) **101000** b) 100010 c) 11110 d) 111100

12. Which one of the following is known as the language of the computer [C]

    a) Programming Language b) High Level Language

    c) **Machine Language** d) Assembly language

13. Find out the output for the following [D]

    #include<stdio.h>

    main( )

    { int c=--2; printf("c=%d",c); } ERROR:REQUIRE L - VALUE

    (A) -2 (B) 0 (C) 2 (D) **None**

14. Which one of the following is not a translator program [C]

    (A) Assembler (B) Interpreter (C) **Linker** (D) Compiler

15. a<<1 is equal to [A]

(A) **multiplying by 2** (B) dividing by 2 (C) added 2 (D) None

16. Algorithm is [B]

a) an executable program b)**a step by step process to perform a particular task**

c) a program which has to be compiled d)none

17. Syntax errors occur [B]

a) during runtime b) **during compilation** c) cannot be determined d) running and compiling

18. i=20% 3.0; the value of i is [C]

a) 2.0 b) 2 c) **invalid statement** d) 3

(*modulo division cannot be used for floating point values*)

19. i =(20> 3) && (3<5); the value of i [B]

a) 0 b)1 c)-1 d) none

20. int a =5, a =++a+++a +a++; The value of a is [D]

a) 18 b) 19 c) 5 d) COMPILER ERROR

21. long int i; [A]

int y;

y=sizeof (i); the value of y will be

a) **4** b) 2 c) 6 d) none

22. the value of –26% 3 is [A]

a) **–2** b) 2 c) 3 d) –3

23. the value os 26%-3 is [A]

a) **2** b) -2 c) 1 d) –1

24. int a=5;

a<<3; the value of this expression is same as [A]

a) **multiplying a by 2^3** b) dividing a by 2^3 c) dividing a by 2 d) multiplying a by 2

25. int a=5;

a>> 3; the value of this expression is same as [A]

a) **dividing this number by b 2^3** b) dividing this number by b 2

c) multiplying this number by b 23 d)none

26. bitwise operators can be used with [D]

a) integers b) float c) characters d) **both a&c**

27. ASCII value of' a' is [C]

a) 90 b) 65 c) **97** d) 96

28. Which operator has lowest precedence? [B]

a) assignment b) **comma** c) and d) addition

29. Which operator has highest priority among the following? [A]

a) ++ b) + c) * d) %

30. Explicit type conversion is known as [A]

a) **type casting** b) coercion c) automatic d) a&c

31. The value of int I=4/5 is [C]

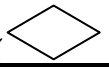
a) 0.3 b) 0.82 c) **0** d) none

32. The operator % yields [C]

a) quotient b) percentage c) **remainder** d) none

33. Which of the following is ternary operator? [A]

a) **?:** b) * c) sizeof d) ^

34. Identify correct statement given float x; [B]
    a) scanf("%c", &x); b) **scanf("%f", &x);** c) scanf("%d",&x); d) a and c
35. Which assignment will lead to 10 in i? [B]
    j=10;
    a) i=++j; b) **i=j++;** c) i=j+1; d) both a and c
36. **65535** is the largest value that an unsigned int type varible can store
37. The hardware along with the read-only software that resides on this hardware is combinely called as **ROM**
38. **&& (LOGICAL AND)** logical operator is true only when both operands are true
39. The order of evaluation can be changed by using **PRANTHESIS( )** in an expression
40. Execution of a C program begins at **main( )**
41. In flowcharts, decisions are represented by using **diamond (**  **)** symbol
42. **Operating system** acts as an interface between the computer hardware and user of the computer
43. ALU stands for **Arithemetic and Logical Unit**
44. **Compiler** translates the high level language source code into low-level language
45. The size of long double variable is **10 bytes**
46. The **associativity** of an operator gives the order in which expressions involving operators of the same precedence are evaluated.
47. The output of the assembler in the form of sequence of 0's and 1's is called **machine code**
48. The process of repeating a group of statements in an algorithm is known as **iteration**
49. The # symbol is known as **pre-processor directive**
50. **Key words** are identifiers reserved by the C language for special use
51. The **precedence** of an operator gives the order in which operators are applied in expressions
52. ASCII value of 'A' is **65**
53. Extend the term CPU **Central Processing Unit**
54. Monitor, keyboard, mouse and printers are **Input/Output** devices
55. C was developed by **Dennis Ritche**
56. **C Compiler** is used to compile your C program
57. Short Integer size is **2 bytes**
58. ANSI stands for **American National Standard Institute**
59. **Documentation** is the process of collecting, organizing and maintaining, written the complete information of the program for future references.
60. A symbolic constant is defined by **#define name value**

61. Give three reasons why C is the best choice of programming language.

ANS) C is powerful, popular, and portable

62. What does the compiler do?

ANS) The compiler translates C source code into machine-language instructions that your computer can understand.

63. What extension should you use for your C source files?

ANS) The appropriate extension for C source files is .C (or .c).

64. If you execute a program that you have compiled and it doesn't work as you expected, what should you do?

ANS) You should make changes to the source code to correct the problems. You should then recompile and relink. After relinking, you should run the program again to see whether your corrections fixed the program

65. What is machine language?

ANS) Machine language is digital, or binary, instructions that the computer can understand. Because the computer can't understand C source code, a compiler translates source code to machine code, also called object code.

66. What does the linker do?

ANS) The linker combines the object code from your program with the object code from the function library and creates an executable file.

67. What is the term for a group of one or more C statements enclosed in braces?

ANS) A block.

68. What is the one component that must be present in every C program?

ANS) The main( ) function.

69. How do you add program comments, and why are they used?

ANS) Any text between /* and */ is a program comment and is ignored by the compiler. You use program comments to make notations about the program's structure and operation.

70. What is a function?

ANS) A function is an independent section of program code that performs a certain task and has been assigned a name. By using a function's name, a program can execute the code in the function

71. C offers two types of functions. What are they, and how are they different?

ANS) A user-defined function is created by the programmer. A library function is supplied with the C compiler

72. What is the #include directive used for?

ANS) An #include directive instructs the compiler to add the code from another file into your source code during the compilation process.

73. Can comments be nested?

ANS) Comments shouldn't be nested. Although some compilers let you to do this, others don't. To keep your code portable, you shouldn't nest comments.

74. Can comments be longer than one line?

ANS) Yes. Comments can be as long as needed. A comment starts with /* and doesn't end until a */ is encountered.

75. What is another name for an include file?

ANS) An include file is also known as a header file.

76. What is an include file?

ANS) An include file is a separate disk file that contains information needed by the compiler to use various functions

77. What's the difference between an integer variable and a floating-point variable?

ANS) An integer variable can hold a whole number (a number without a fractional part), and a floating-point variable can hold a real number (a number with a fractional part).

78. Give two reasons for using a double-precision floating-point variable (type double) instead of a single-precision floating-point variable (type float).

ANS) A type double variable has a greater range than type float (it can hold larger and smaller values). A type double variable also is more precise than type float.

79. What are the two advantages of using a symbolic constant instead of a literal constant?

ANS) The names of symbolic constants make your source code easier to read. They also make it much easier to change the constant's value.

80. Show two methods for defining a symbolic constant named MAXIMUM that has a value of 100.

ANS) a. #define MAXIMUM 100

b. const int MAXIMUM = 100;

81. What characters are allowed in C variable names?

ANS) Letters, numerals, and underscores

82. What guidelines should you follow in creating names for variables and constants?

ANS) Names of variables and constants should describe the data being stored. Variable names should be in lowercase, and constant names should be in uppercase.

83. What's the difference between a symbolic and a literal constant?

ANS) Symbolic constants are symbols that represent literal constants

84. What's the minimum value that a type int variable can hold?

ANS) If it's an unsigned int that is two bytes long, the minimum value it can hold is 0. If it is signed, -32,768 is the minimum.

85. What is the following C statement called, and what is its meaning?

x = 5 + 8;

ANS) It is an assignment statement that instructs the computer to add 5 and 8, assigning the result to the variable x.

86. What is an expression?

ANS) An expression is anything that evaluates to a numerical value

87. In an expression that contains multiple operators, what determines the order in which operations are performed?

ANS) The relative precedence of the operators.

88. If the variable x has the value 10, what are the values of x and a after each of the following statements is executed separately?

a = x++;

a = ++x;

ANS) After the first statement, the value of a is 10, and the value of x is 11. After the second statement, both a and x have the value 11. (The statements must be executed separately.)

89. To what value does the expression 10 % 3 evaluate?

ANS) 1

90. To what value does the expression 5 + 3 * 8 / 2 + 2 evaluate?

ANS) 19

91. Rewrite the expression in question 6, adding parentheses so that it evaluates to 16.

ANS) (5 + 3) * 8 / (2 + 2)

92. If an expression evaluates to false, what value does the expression have?

ANS) 0

93. What are the compound assignment operators, and how are they useful?

ANS) The compound assignment operators let you combine a binary mathematical operation with an assignment operation, thus providing a shorthand notation. The compound operators presented in this chapter are +=, -=, /=, *=, and %=.

94. What is an algorithm?

ANS) An algorithm consists of a set of explicit and unambiguous finite steps which, when carried out for a given set of initial conditions produce the corresponding output and terminate in a finite time.

95. What is flow chart?

ANS) A flow chart is a visual representation of the sequence of steps for solving a problem

96. Define keyword

ANS) Keywords are the words whose meaning has already been explained to the C compiler (or in a broad sense to the computer). The keywords cannot be used as variable names because if we do so we are trying to assign a new meaning to the keyword, which is not allowed by the computer.

97. What is precedence and associativity?

ANS) The order of priority in which the operations are performed in an expression is called precedence. Associativity specifies the order in which the operators are evaluated with the same precedence. Associativity is of two ways i.e. left to right and right to left.

98. What is a header file?

ANS) The entire 'C' library is divided into several files. Each such file is known as header file. Usually header files have an extension like **.h** to distinguish that from the 'C' program files.

99. Define a program

ANS) Program is defined as set of instructions arranged as per the syntax of programming language