CSC 102

B.Sc. Ist SEMESTER EXAMINATION, 2023-24

COMPUTER SCIENCE

(Problem Solving Using Computer)

Date (तिथि) : _____

Paper ID
(To be filled in the OMR Sheet)

1019

अनुक्रमांक (अंकों में) :

Roll No. (In Figures) :

अनुक्रमांक (शब्दों में) : _____

Roll No. (In Words) : _____

Time : 1:30 Hrs.

समय : 1:30 घण्टे

Max. Marks : 75

अधिकतम अंक : 75

नोट : पुस्तिका में 50 प्रश्न दिये गये हैं, सभी प्रश्न करने होंगे। प्रत्येक प्रश्न 1.5 अंक का होगा।

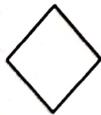| **Important Instructions :**	**महत्वपूर्ण निर्देश :**
1. The candidate will write his/her Roll Number only at the places provided for, i.e. on the cover page and on the OMR answer sheet at the end and nowhere else.	1. अभ्यर्थी अपने अनुक्रमांक केवल उन्हीं स्थानों पर लिखेंगे जो इसके लिए दिये गये हैं, अर्थात् प्रश्न पुस्तिका के मुख्य पृष्ठ तथा साथ दिये गये ओ०एम०आर० उत्तर पत्र पर, तथा अन्यत्र कहीं नहीं लिखेंगे।
2. Immediately on receipt of the question booklet, the candidate should check up the booklet and ensure that it contains all the pages and that no question is missing. If the candidate finds any discrepancy in the question booklet, he/she should report the invigilator within 10 minutes of the issue of this booklet and a fresh question booklet without any discrepancy be obtained.	2. प्रश्न पुस्तिका मिलते ही अभ्यर्थी को जाँच करके सुनिश्चित कर लेना चाहिए कि इस पुस्तिका में पूरे पृष्ठ हैं और कोई प्रश्न छूटा तो नहीं है। यदि कोई विसंगति है तो प्रश्न पुस्तिका मिलने के 10 मिनट के भीतर ही कक्ष परिप्रेक्षक को सूचित करना चाहिए और बिना त्रुटि की दूसरी प्रश्न पुस्तिका प्राप्त कर लेना चाहिए।

1. Who is the father of Computers ?
   (A) James Gosling
   (B) Charles Babbage
   (C) Dennis Ritchie
   (D) Bjarne Stroustrup

2. The only language which the computer understands is _____
   (A) Computer understands only C language
   (B) Computer understands only Assembly Language
   (C) Computer understands only Binary Language
   (D) Computer understands only BASIC

3. The computer memory used for temporary storage of data and program is called :
   (A) RAM
   (B) ROM
   (C) EROM
   (D) EPROM

4. Which of the following devices is used in the first generation computer ?
   (A) Microprocessor
   (B) Processor
   (C) Vacuum tube
   (D) Integrated circuit

5. Third generation computers and based on :
   (A) Integrated circuit
   (B) Programming Intelligence
   (C) System Knowledge
   (D) Vaccum Tube

6. RAM is _____ and _____.
   (A) Volatile, temporary
   (B) Non-volatile, temporary
   (C) Volatile, permanent
   (D) Non-volatile, permanent

7. "Functions can return structure in C" this statement is :

    (A)   True

    (B)   False

    (C)   Depends on the compiler

    (D)   Depends on the standard

8. Which memory acts as a buffer between CPU and main memory ?

    (A)   RAM

    (B)   ROM

    (C)   Cache

    (D)   Storage

9. The toupper() function converts a _____ to the corresponding_____.

    (A)   Uppercase, lowercase

    (B)   Lowercase, uppercase

    (C)   Binary, decimal

    (D)   Decimal, binary

10. A _____ is diagram that depicts the flow of a program.

    (A)   Algorithm

    (B)   Hash Table

    (C)   Graph

    (D)   Flowchart

11. The following box denotes in flowchart :

    (A)   Decision

    (B)   Initiation

    (C)   Initialization

    (D)   I/O

12. A box that can represent many conditions :

(A) Rectangle

(B) Diamond

(C) Circle

(D) Parallelogram

13. All keywords in C are in _____.

(A) Lower Case letters

(B) Upper Case letters

(C) Camel Case letters

(D) None of the mentioned

14. The _____ function converts an uppercase letter to the corresponding lowercase letter.

(A) islower()

(B) isupper()

(C) toupper()

(D) tolower()

15. What is an example of iteration in C ?

(A) For

(B) While

(C) Do-while

(D) All of the mentioned

16. What is #include<stdio.h> ?

(A) Preprocessor directive

(B) Inclusion directive

(C) File inclusion directive

(D) None of the mentioned

17. Which of the following is not a valid C variable name ?

(A) int number;

(B) float rate;

(C) int variable_count;

(D) int $main;

18. Which is valid C expression ?

    (A)   int my_num =100,000;

    (B)   int my_num =100000;

    (C)   int my num = 1000;

    (D)   int $my_num = 10000;

19. The format identifier '%d' is also used for_____ data type.

    (A)   Char

    (B)   Int

    (C)   Float

    (D)   Double

20. Which keyword is used to prevent any changes in the variable within a C program ?

    (A)   Immutable

    (B)   Mutable

    (C)   Const

    (D)   Volatile

21. Which is correct with respect to the size of the data types ?

    (A)   char>int>float

    (B)   int>char>float

    (C)   char<int<double

    (D)   double>char>int

22. What will be the output of the following C code ?

- #include<stdio.h>
- int main()
- {
- int i =7;
- int k = i % 3;
- printf("%d/n", k);
- }

    (A)   Compile time error

    (B)   -1

    (C)   1

    (D)   Implementation defined

23. Which keyword can be used for coming out of recursion ?
   (A) Break
   (B) Return
   (C) Exit
   (D) Both break and return

24. What is the precedence of arithmetic operators (from highest to lowest) ?
   (A) %, *, /, +, -
   (B) %, +, /, *, -
   (C) +, -, %, *, /
   (D) %, +, -, *, /

25. Which of the following is not an arithmetic operation ?
   (A) a * = 10;
   (B) a / = 10;
   (C) a ! = 10;
   (D) a % = 10;

26. Scanf() is a predefined function in _____ header file.
   (A) stdlib. h
   (B) ctype. h
   (C) stdio. h
   (D) stdarg. h

27. In the following code segment :
   Int z, x=5, y= -10, a=4, b=2,
   z=x++ - --y* b/a;
   What will be the final value of z ?
   (A) 5
   (B) 6
   (C) 10
   (D) 1

28. The _____ function returns the number of characters that are present before the terminating null character.
   (A) strlength()
   (B) strlen()
   (C) strlent()
   (D) strchr()

29. Which of the following is an invalid method for input ?
    (A)   scanf("%d%d%d",&a, &b, &c);
    (B)   scanf("%d%d", &a, &b);
    (C)   scanf("%d%c%f", &a,&b,&c);
    (D)   none of the mentioned

30. A linker program :
    (A)   Places the program in the memory for the purpose of execution
    (B)   Relocates the program to execute from the specific memory area allocated to it
    (C)   Links the program with other programs needed for its execution
    (D)   Interfaces the program with the entities generating its input data

31. Which of the following is the correct code ?
    (A)   tanh(double x)
    (B)   tanh double x
    (C)   tanhdouble x
    (D)   tanhdoublex

32. _____ refers to the process of locating and correcting errors.
    (A)   Testing
    (B)   Debugging
    (C)   Retransforming
    (D)   Correcting

33. Which of the following is not a proper storage class in 'C' ?
    (A)   auto
    (B)   dec
    (C)   static
    (D)   extern

34. Value of static storage variable :
    (A)   Changes during different functions calls
    (B)   Persists between different functions calls
    (C)   Increases during different functions calls
    (D)   Decreases during different functions calls

35. In case of a conflict between the names of a local and global variable what happens ?
    (A) The global variable is given a priority
    (B) The local variable is given a priority
    (C) Which one will get a priority depends upon which one is defined first
    (D) The compiler reports an error

36. Which of the given function is a library function under the header math.h ?
    (A) $log_{10}()$
    (B) $log_{20}()$
    (C) $log_{30}()$
    (D) $log_{50}()$

37. What is required in each C program ?
    (A) The program must have at least one function
    (B) The program does not require any function
    (C) Input data
    (D) Output data

38. What is the output of this statement "printf("%d",(a++))" ?
    (A) The value of (a+1)
    (B) The current value of a
    (C) Error message
    (D) Garbage

39. Which of the following is true for the following C statement :

    Int *ptr, p;
    (A) ptr is a pointer to integer, p is not
    (B) ptr and p, both are pointers to integer
    (C) ptr is a pointer to integer, p may or may not be
    (D) ptr and p both are not pointers to integer

40. Which of the following are themselves a collection of different data types ?
    (A) String
    (B) Structures
    (C) Char
    (D) All of the mentioned

41. Which operator connects the structure name to its member name ?
    (A) -
    (B) < –
    (C) .
    (D) Both < – and .

42. Which of the following cannot be a structure member ?
    (A) Another structure
    (B) Function
    (C) Array
    (D) None of the mentioned

43. Which of the following is a correct format for declaration of function ?
    (A) return-type function-name(argument type);
    (B) return-type function-name(argument type){}
    (C) return-type (argument type)function-name;
    (D) All of the mentioned

44. The value obtained in the function is given back to main by using _____ keyword.
    (A) Return
    (B) Static
    (C) New
    (D) Volatile

45. Which of the following is a storage specifier ?
    (A) Enum
    (B) Union
    (C) Auto
    (D) Volatile

46. For a typical program, the input is taken using _____.
    (A) Scanf
    (B) Files
    (C) Command-line
    (D) All of the mentioned

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47. What type of inputs are accepted by mathematical functions ?

   (A)   short

   (B)   int

   (C)   float

   (D)   double

48. The maximum number of characters to be printed is specified by _____.

   (A)   Precision

   (B)   Width

   (C)   Length

   (D)   Flags

49. Which of the following is an entry controlled loop ?

   (A)   For

   (B)   Do-while

   (C)   All of these

   (D)   None of these

50. Who is father of C language ?

   (A)   Charles Babbage

   (B)   Dennis Ritchie

   (C)   Steve Jobs

   (D)   Tim Benner lee

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