Reg. No. : ....

Code No. : 20481 E   Sub. Code : CMCS 11/
                                        CMSE 11

B.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2023.

First Semester

Computer Science/Software Engineering – Core

PROGRAMMING IN C

(For those who joined in July 2021–2022)

Time : Three hours   Maximum : 75 marks

SECTION A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer:

1. _____ is the name given to variables, functions, and labels in C program.

    (a)   Sign

    (b)   Symbolic constant

    (c)   Identifier

    (d)   Indent

2. 'C' is a _____ constant.

    (a)   decimal   (b)   integer

    (c)   string   (d)   character

3. The ?: Operator has _____ operands.

    (a)   4   (b)   2

    (c)   3   (d)   1

4. _____ is an entry-controlled looping statement.

    (a)   for   (b)   if

    (c)   while   (d)   do ... while

5. What is the output of following program?
    #include <stdio.h>
      void main()
      {
              int a[2][3] = {1, 2, 3, 4, 5};
              int i = 0, j = 0;
              for (i = 0; I < 2; i++)
              for (j = 0; j < 3; j++)
              printf("%d", a[i][jj);
      }

    (a)   1 2 3 4 5 0   (b)   1 2 3 4 5 junk

    (c)   1 2 3 4 5 5   (d)   Run time error

6. What is the use of function char *strchr(ch, c)?

    (a)   return pointer to first occurrence of ch in c or NULL if not present

    (b)   return pointer to first occurrence of c in ch or NULL if not present

    (c)   return pointer to first occurrence of ch in C or ignores if not present

    (d)   return pointer to first occurrence of c in ch or ignores if not present

7. _____ is an indirection operator.

    (a)   &   (b)   %

    (c)   *   (d)   > <

8. What will be the size of the following structure?
    #include <stdio.h>
    struct temp
    {
       int a[10];
       char p;
    };

    (a)   11   (b)   44

    (c)   41   (d)   22

9. What is the output of following program?
    #include <stdio.h>
    int i;
    int main()
    {
            extern int i;
            if (i == 0)
                    printf("scope rules\n");
    }

    (a)   Scope rules   (b)   Compile time error

    (c)   Runtime error   (d)   Infinite looping

10. Which one of the following is correct syntax for opening a file?

    (a)   FILE *fopen(const *filename, const char *mode)

    (b)   FILE *fopen(Const *filename)

    (c)   FILE *Open (const *filename, const char *mode)

    (d)   FILE open (const*filename)

11. (a) Define tokens in C. List and explain with examples.

Or

(b) Write about operator precedence in C.

12. (a) Illustrate I/O Statements in C with Examples

Or

(b) Write a C program to print names of months using switch-case statement.

13. (a) Write a C program to find sum of positive elements in a given set of numbers.

Or

(b) Explain the usage of two-dimensional arrays.

14. (a) Explain declaration and usage of a function to calculate factorial.

Or

(b) Compare structures and unions.

15. (a) Justify printing of a two-dimensional array using pointers.

Or

(b) Summarize opening and closing a data file in C.

SECTION C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Write a C program using any four data types in C.

Or

(b) Write a C program using any ten operators in C.

17. (a) Explain *for* statement in C with examples

Or

(b) Develop a C program to find sum of *n* terms of Fibonacci series.

18. (a) Construct a C program to find sum and difference of two matrices

Or

(b) Illustrate any five string functions in C.

19. (a) Write a program to sort numbers using user defined function.

Or

(b) Analyze declaration of arrays within structures and their usage.

20. (a) Write a program to create a file containing five student records.

Or

(b) Estimate the significance of pointers in C.

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