CBCS SCHEME

USN | | | | | | | | | | |

18CPS13/23

First/Second Semester B.E. Degree Examination, June/July 2023
C Programming for Problem Solving

Time: 3 hrs. Max. Marks: 100

Note: ***Answer any FIVE full questions, choosing ONE full question from each module.***

Module-1

1 a. Define Token? Explain the different types of tokens available in C-Language. **(10 Marks)**

b. Which of the following are valid variable names if not give reason
i) int ii) n$ iii) a_ _ b iv) New Delhi v) auto. **(05 Marks)**

c. What is a flowchart? Explain the meaning of symbols used in flowchart. **(05 Marks)**

OR

2 a. Define Computer? Explain different computer Languages. **(10 Marks)**

b. Write an algorithm and program to find the area and perimeter of a circle. **(10 Marks)**

Module-2

3 a. What is Branching? Explain if, if. . . . else and switch with its syntax and example. **(10 Marks)**

b. Write a C-program to find the reverse of an integer number and whether it is a palindrome or not. **(06 Marks)**

c. Explain the use of getch( ), getche( ) and patch( ) functions. **(04 Marks)**

OR

4 a. Write a program to compute the Binomial Co-efficient. **(08 Marks)**

b. Write a program to print the multiplication table of a given integer number. **(04 Marks)**

c. Explain break and continue statements with suitable examples. **(08 Marks)**

Module-3

5 a. Explain how single dimensional arrays are declared and initialized with syntax and example. **(10 Marks)**

b. Write a program to find the product of given the matrices and ensure rules of multiplication are checked. **(10 Marks)**

OR

6 a. Explain how strings are declared and initialized with syntax and example. **(10 Marks)**

b. Write a C program to search for a given element in an array using binary search. **(10 Marks)**

Module-4

7 a. What is recursion? Write a recursive program to find the factorial of a given number. **(10 Marks)**

b. What are actual and formal parameters? Explain with an example program. **(10 Marks)**

OR

8 a. What is a function? What are the different types of functions? (06 Marks)
b. Write a C program to generate Fibnonacci series using recursive function. (10 Marks)
c. Explain any two built in functions. (04 Marks)

Module-5

9 a. What is preprocessor? Explain #define and #include preprocessor directive with an example. (10 Marks)
b. Explain the following C functions with syntax and example to each.
i) malloc( ) ii) calloc ( ) iii) realloc ( ) iv) free ( ) (10 Marks)

OR

10 a. How structure is different from an array? Explain the declaration of structure with an example. (10 Marks)
b. Write a C program to swap two numbers using pointers. (05 Marks)
c. What is pointer? Explain how to declare and initialize a pointer variable. (05 Marks)

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