

Course Title: Problem Solving using C-language
Max. Marks: 80

Course Code: UBCATC-102
Time: 3 Hrs

Section A

Answer the following short answer type questions:

- Q1. Explain unary and binary operators.
- Q2. Distinguish between 'break' and 'continue' statements.
- Q3. Write a program to find area of rectangle using functions.
- Q4. Declare and initialize two dimensional array.
- Q5. Write any program to access array through functions.

5×3=15 Marks

Section B (Medium Answer Type)

Attempt all Questions. Each question carries 7 marks.

- Q6. Explain various Data types in C language.
- Q7. Explain syntax of 'for' loop. Write a program to calculate average of n given numbers using 'for' loop.
- Q8. Differentiate between call by value and reference. Write a program to swap the values of two variables using call by reference.
- Q9. Write a program to add to matrices of order 3.
- Q10. Define nested structure? Explain array of structure with example.

Section C (Long Answer Type)

Attempt any two questions. Each question carries 15 marks.

- Q11. a) Discuss various types of errors in 'C' with examples. 10 Marks
b) Discuss advantages of flowcharts. 5 Marks
- Q12. Define switch statement? Write and explain its syntax. Write a program to perform arithmetic operations using 'switch' statement.
- Q13. a) What is condition compilation? How is it achieved? Discuss with example. 10 Marks
b) Differentiate between a macro and a function. 5 Marks
- Q14. Define strings? How strings are declared? Describe various inbuilt string functions in C with the help of examples. 15 Marks
- Q15. (a) What are the operations permissible on pointers? What is a void pointer? What type of value does it store? 8 Marks
(b) Distinguish between array and structure. What are the applications of structure. 7 Marks