

F-55/2/10

B. Sc. (CSM) Semester I

10313/NJ

**Computer Programming Using C
(CSM-117)**

Time allowed: 3 Hours

Max. Marks: 30

Note: Attempt five questions in all, selecting two questions each from sections A and B of the question paper. Question in section C is compulsory. All questions of sections A and B carry 4 marks each and section C carries 14 marks.

Section – A

1. Discuss the phases of problem solving with computers.
2. What are Arithmetic and Logical expressions? Discuss the rules of evaluating arithmetic and logical expressions in C.
3. What are the various iteration statements available in C? Discuss with examples.
4. Write a program in C to reverse the alphabets of a given string.

Section – B

5. What are Functions? Why Functions are used in C? Differentiate between parameter passing by reference and by value with appropriate examples.
6. Define a Structure. How is a structure declared in C? What are the operations that can be performed on a structure?
7. What is a File? How is a File used in a C program? Explain the opening, reading, writing and closing of text files in C?
8. Discuss and differentiate between:
 - (a) Testing and Debugging
 - (b) Top-down and bottom-up design approaches

Section – C

9. Answer the following questions very briefly:
 - a) What is an Algorithm? How is it different from a Flowchart?
 - b) What is a constant? Give an example. How is a constant defined in C?
 - c) What are the steps of compiling a C program?
 - d) What is an assignment statement? What is its purpose?
 - e) What is the difference between Structure and Union?
 - f) What is an array of pointers?
 - g) What is Recursion in programming?