DD–770

M. A./M. Sc. (Fourth Semester) EXAMINATION, 2020

MATHEMATICS

(Optional—A)

Paper Fifth

[Programming in 'C' (With ANSI Features)–II]

Time : Three Hours

Maximum Marks : 70

Note : Attempt any *two* parts from each question. All questions carry equal marks.

Unit—I

1. (a) What is difference between local variable and global variable ? Explain with example. 7

   (b) What do you mean by storage classes ? Explain the different types of storage classes. 7

   (c) Write short notes on the following : 7

   (i) The register specifier

   (ii) ANSI rules for the syntax and semantics

Unit—II

2. (a) What do you understand by pointer ? Explain the pointer arithmetic. 7

(b) Write a program in C for find biggest number among three numbers using pointer.   7

(c) Explain the following :   7

   (i) Arrays of Pointer

   (ii) Passing Arrays as Function Arguments

Unit—III

3. (a) Write a program in 'C' to read matrix A (M × N) and matrix B (N × P) and calculate its multiplication using functions.   7

   (b) What is the role of recursion function ? Explain with any *one* C program that using recurion function.   7

   (c) Explain the following :   7

   (i) Macro substitution

   (ii) Line control

Unit—IV

4. (a) Write a program in 'C' to define a structure student with name, class and roll-no. Enter data for 10 students and then point the name of the first and the last student.   7

   (b) What is the role of dynamic memory allocation. Explain the dynamic memory allocation functions. 7

   (c) Explain the following :   7

   (i) Linked List

   (ii) Enum Declarations

Unit—V

5. (a) What do you understand by error handling ? How to use in program ? Explain with any *one* program.   7

(b) What is the role of Header file in C language ? Explain any *two* header files. 7

(c) Explain the following : 7

  (i) Input and output streams

  (ii) Unbuffered I/O Random Access