

Master of Science (M.Sc.) (Electronics) Semester—I (C.B.S.) Examination

PROGRAMMING IN C

Compulsory Paper—4

Time : Three Hours]

[Maximum Marks : 100

N.B. :— (1) **ALL** questions are compulsory and carry equal marks.

(2) Draw suitable flowcharts and diagrams wherever necessary.

EITHER

1. (A) What are the different data types supported by 'C' ? Explain. 10
 (B) What is an algorithm ? Write an algorithm to find greatest of three numbers. 10

OR

- (E) Explain compiler, interpreter and assembler. 10
 (F) Explain different input and output functions used in 'C'. 10

EITHER

2. (A) Differentiate between 'while' and 'do-while' statements. 10
 (B) Write a program in 'C' to find LCM and HCF of two integers. 10

OR

- (E) Explain the working of 'for-loop' in detail with suitable examples. 10
 (F) Write a program in 'C' to print all prime factors of an integer number. 10

EITHER

3. (A) What is an array ? Explain the different methods of initialization of one dimensional array. 10
 (B) What is recursion ? Write a recursive function to find the factorial of an integer number. 10

OR

- (E) What is a 'structure' ? What are the different ways of assigning values to structure elements ? 10
 (F) Explain the different storage classes with respect to their characteristics. 10

EITHER

4. (A) What is a pointer ? Explain in brief. How are pointers used with arrays ? 10
- (B) Write a program in 'C' to create a file with following fields : Name, Roll Number, Percentage of Marks. 10

OR

- (E) Explain how the parallel printer port can be interfaced using 'C' language. 10
- (F) What are the different modes of opening a file in 'C' ? Explain. 10
5. (I) What is a flow chart ? List different symbols used in flow charting. 5
- (II) Explain the 'break' and 'continue' statements. 5
- (III) What is an 'union' ? Explain. 5
- (IV) What are the 'linked lists' ? Explain. 5

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