Code: 17F00102

MCA I Semester Supplementary Examinations May/June 2019

INTRODUCTION TO PROBLEM SOLVING & PROGRAMMING

(For students admitted in 2017 & 2018 only)

Time: 3 hours Max. Marks: 60

Answer all the questions

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1 (a) Write and explain an algorithm for exchanging the values of two variables.
(b) Describe an approach to find the efficiency of algorithms.

OR

2 (a) Describe an algorithm for finding the sum of a set of numbers.
(b) Explain the notations used for analysis of algorithms.

3 Describe an algorithm for generating prime numbers and illustrate with an example.

OR

4 Explain an algorithm for raising a number to a large power.

5 Explain the various conditional statements in C language with syntax and examples.

OR

6 (a) Explain the structure of a C program and describe the process of executing a C program.
(b) Explain the declaration and initialization of strings in C language.

7 (a) Explain the parameter passing methods in C language.
(b) Describe array of structures with an example.

OR

8 (a) Explain the storage classes in C language and discuss the scope and lifetime of variables.
(b) Explain the syntax for declaration of union and accessing union members with an example.

9 (a) Explain the syntax and use of malloc and calloc with a suitable example.
(b) Write a C program to copy the contents of one text file (containing empid, name, age, net salary) to another text file.

OR

10 (a) Explain pointer to pointer with an example.
(b) Explain the functions for file handling in 'C'.

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