



MCA I Semester Supplementary Examinations June/July 2018
INTRODUCTION TO PROBLEM SOLVING & PROGRAMMING

(For students admitted in 2017 only)

Time: 3 hours

Max. Marks: 60

Answer all the questions

- 1 Explain various steps involved in a systematic implementation of algorithms in top-down approach.

OR

- 2 Write a Pascal implementation of summing up a set of n numbers and return the resultant sum.

- 3 Write the Pascal implementation for generating pseudo-random numbers.

OR

- 4 Develop an algorithm to raise a number 'n' to a large power 'p'.

- 5 What do you mean by typecasting? Explain the difference between while and do-while loop with an example.

OR

- 6 Explain different relational operators. Define a variable and list out the rules for formulating variable names.

- 7 What is recursion? Explain the declaration of a function with an example.

OR

- 8 Define and declare a union. List out the differences between structures and unions.

- 9 What is the difference between malloc and calloc functions? Explain the concepts of arrays of pointers with an example.

OR

- 10 Define a file. Write a program to demonstrate the opening and closing of a file.
