Roll No…….. **Total No. of Printed Pages: [1]**
Total No. of Questions: [09]

BCA (Semester – 1st)
PROBLEM SOLVING USING C
Subject Code: BCAP1101
Paper ID: [160101]

Time: 03 Hours **Maximum Marks: 60**

Instruction for candidates:

1. Section A is compulsory. It consists of 10 parts of two marks each.
2. Section B consist of 5 questions of 5 marks each. The student has to attempt any 4 questions out of it.
3. Section C consist of 3 questions of 10 marks each. The student has to attempt any 2 questions.

Section – A **(2 marks each)**

Q1. Attempt the following:

a) What are the various symbols used in Flow Charts?
b) What is the difference between Top-down and Bottom-up design?
c) Write down the steps of program development.
d) What is the difference between break and continue statement?
e) Write a short note on function prototyping?
f) Write a short note on Type casting.
g) Write a short note on Recursive functions.
h) What is the difference between formal and actual arguments in 'C' language?
i) Write a short note on Dynamic Memory allocation?
j) What are the different storage classes used in 'C' language?

Section – B **(5 marks each)**

Q2. What are the different types of Programming languages? Explain each of them.
Q3. What are the various Data Types supported by 'C' language. Explain with the help of example.
Q4. Write a program in 'C' to find the largest of three numbers using nested If-else statement.
Q5. What is Structure? How it is declared and accessed? Discuss how the Structure is different from Union?
Q6. What is Pointer? What are the different operations that can be performed on Pointers?

Section – C **(10 marks each)**

Q7. Explain the different Control statements used in 'C' language with syntax and suitable examples.
Q8. What is the need of Array? What are the One-dimensional and Multi-dimensional arrays? Explain the declaration and initialization of one and two dimensional arrays with the help of 'C' program.
Q9. What is the use of functions in 'C' language? Discuss the concept of "Pass by Value" and "Pass by reference" with the help of suitable program of 'C language'.