(i) Printed Pages : 2 Roll No. .....

(ii) Questions : 9 Sub. Code : 1 3 4 0 3

Exam. Code : 5 0 4 1

Bachelor of Computer Application (FYUP) 1st Semester

(2125)

PROBLEM SOLVING THROUGH C

Paper : BCA103

Time Allowed : Three Hours] **[Maximum Marks : 45**

Note :— Attempt **FIVE** questions in all, selecting **ONE** question each from Unit-I to Unit-IV. Unit-V is compulsory.

UNIT–I

1. (a) Write the structure of a C program along with an example. 5

   (b) What is a flowchart? Draw a flowchart to find the largest of three given numbers. 4

2. (a) List and briefly explain different types of operators used in C. 5

   (b) Explain the concept of constants in C programming. Write different types of constants in C. 4

UNIT–II

3. (a) Explain switch statement in C. How does it differ from the else-if statement? 5

   (b) What do you mean by recursion? Write a C Program to calculate factorial of a number using recursion. 4

4. (a) What are the various methods of parameter passing to functions? Explain with example. 5

(b) Write the difference between while and do-while along with example. 4

UNIT–III

5. (a) What is an array? Explain how arrays are declared and initialized in C with example. 5

(b) Write a C program to search an element from an array. 4

6. (a) Explain how 2-Dimensional arrays are stored in memory. Write a C program to read and display 3×3 matrix. 5

(b) What is a pointer in C? How do you access the value pointed to by a pointer? Give an example. 4

UNIT–IV

7. Define a string in C programming. Write any four string library functions along with example. 9

8. What are structures in C programming? How are structures different from union? Discuss the concept of Array of structures. 9

UNIT–V

9. (a) Write the difference between local and global variable. 2

(b) Write the difference between compilation and execution. 2

(c) What is the role of *goto* statement in C? 2

(d) Write the difference between *break* and *continue* statements in C. 2

(e) Define keywords in C. 1