

**PTIF 131 – PROBLEM SOLVING AND COMPUTER PROGRAMMING**

*Time 3 Hrs*

*Answer all Questions*

*100 Marks*

**PART A – (10 X 2 = 20 Marks)**

1. Define modular programming.
2. Define selection and iteration.
3. What are the types of parameter passing methods to functions?
4. What is meant by precedence and associativity of operators?
5. Differentiate break and continue statements.
6. How a two dimensional array is declared and initialized?
7. What is meant by conditional compilation?
8. Differentiate void pointer from char pointer.
9. Differentiate the memory allocation scheme for structure and union.
10. What are sequential files?

**PART B – (5 x 16 = 80)**

11. Write a program to insert and delete integers in a linked list and display values in the linked list. [16]
  12. a. Discuss about the top down program development in detail. [16]
- (or)
- b. Explain how the procedures and recursive procedures are handled in programming languages with examples. [16]

13. a. Explain the syntax of “for”, “do”, “while” statements with necessary examples. [16]

(or)

b. i. Explain the precedence of operators and evaluation of expressions in C. [10]

ii. Write about the various control strings used for formatted input and output. [6]

14. a. i. Explain the syntax of the switch and if statements in C language. [8]

ii. Write a program to find the factorial and nCr value using function. [8]

(or)

b. Write program for sorting n number of strings. [16]

15. a. Write a C program to display the contents of a text file along with the number of lines and characters in that file. [16]

(or)

b. Write a C program to create a file of student records and display the contents in a neat format. [16]