Question Paper Code: R18A12CS01

R18

ANURAG Engineering College

(An Autonomous Institution)

I B.Tech II Semester Supplementary Examinations, January-2025

PROGRAMMING FOR PROBLEM SOLVING – II

(COMMON TO ALL BRANCHES)

Time: 3 Hours **Max. Marks: 75**

Section – A (Short Answer type questions) (25 Marks)

Answer All Questions

		Course Outcome	B.T Level	Marks
1.	Define Structure? How to Initialize a Structure?	CO1	L1	2M
2.	Explain about self-referential structures.	CO1	L2	3M
3.	Define pointer. How can you declare it?	CO2	L1	2M
4.	Give the syntax and explain arrays of pointers in detail	CO2	L2	3M
5.	What are the Different file operations?	CO3	L1	2M
6.	Write a program that copies the content of one file into another.	CO3	L2	3M
7.	Differentiate between linear and non-linear data structures.	CO4	L1	2M
8.	Differentiate between stack and queue data structures.	CO4	L2	3M
9.	Define searching.	CO5	L1	2M
10.	What is Sorting?	CO5	L2	3M

Section B (Essay Questions)

Answer all questions, each question carries equal marks. **(5 X 10M = 50M)**

11. A)	Explain the differences between Structures and Unions in C language with example programs.	CO1	L2	10M
	OR			
B)	Write a C program that defines a structure employee containing the details such as empno, empname, department name and salary. The structure has to store 20 employees in an organization. Use the appropriate method to define the above details and define a function that will display the contents?	CO1	L3	10M
12. A)	What is a pointer? Explain how pointers used in structures with example.	CO2	L2	10M
	OR			
B)	How to pass pointers to functions? Explain with an example program.	CO2	L2	10M
13. A)	Write the syntax for opening a file with various modes and closing a text file with examples.	CO3	L3	10M
	OR			
B)	Write a C program to display the contents of the file in reverse order.	CO3	L3	10M
14. A)	What is stack? Write algorithm for operations of stack with examples.	CO4	L2	10M
	OR			
B)	What are the limitations of queue? Explain the algorithms for various operations of queues.	CO4	L2	10M
15. A)	Write a program to implement bubble sort.	CO5	L3	10M
	OR			
B)	Write a program to implement insertion sort.	CO5	L2	10M