

THE KAVERY ENGINEERING COLLEGE*(An Autonomous Institution)***B.E/B.TECH DEGREE END SEMESTER THEORY EXAMINATIONS, APRIL-MAY 2025***Second Semester**Computer Science and Engineering***CS3251/ UCST24201 – Programming in C****(Common to Information Technology)***Regulations – 2021/2024***Duration : 3 Hrs****Maximum : 100 Marks****PART – A (ANSWER ALL QUESTIONS) (Marks 10*2=20)**

Q.No	Questions	BLT	CO	Marks
1.	Write the syntax of an enumeration constant.	L2	1	2
2.	Mention any two differences between while and do-while loops.	L2	1	2
3.	How do you declare and initialize a one-dimensional array?	L2	2	2
4.	What is the time complexity of selection sort?	L1	2	2
5.	Define function prototype with an example.	L1	3	2
6.	Differentiate between pass by value and pass by reference.	L2	3	2
7.	List any two differences between structure and union.	L2	4	2
8.	Define storage classes. List any two.	L1	4	2
9.	What is the purpose of fopen() and fclose() functions?	L2	5	2
10.	State the advantage of using files in programming.	L2	5	2

PART – B (ANSWER ALL QUESTIONS) (Marks 5*16 = 80)

Q.No	Questions	BLT	CO	Marks
11.	a Describe the various decision-making statements used in C.	L3	1	16
	Or			
	b Create a program that demonstrates the use of all arithmetic and relational operators.	L3	1	16
12.	a Write a program to add two 3x3 matrices.	L3	2	16
	Or			
	b Write a program to simulate binary search with dry-run example.	L3	2	16
13.	a Explain how recursion works with an example.	L2	3	16
	Or			
	b Explain the concept of pointers and how they are used to access	L2	3	16

array elements with suitable code.

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| 14. | a | Write a program to create a singly linked list using self-referential structures and perform insertion at the end. | L3 | 4 | 16 |
| | | Or | | | |
| | b | Write a C program using an array of structures to manage employee records. | L3 | 4 | 16 |
| 15. | a | Write a C program to create a file and write student details (name, roll no, marks), then read and display them. | L3 | 5 | 16 |
| | | Or | | | |
| | b | Write a program to add two numbers using command line arguments. | L3 | 5 | 16 |