

Reg No:.....

K25FY2423.A

Name :.....

Second Semester FYUGP Computer Science Examination
APRIL 2025 (2024 Admission onwards)
KU2DSCCSC108 (ADVANCED PROGRAMMING WITH C)
(DATE OF EXAM: 28-4-2025)

Time : 90 min

Maximum Marks : 50

Part A (Answer any 6 questions. Each carries 2 marks)

1. Write the syntax to define a structure named Employee with members id, name, and salary. 2
2. How do you access the value stored at a memory location using a pointer? 2
3. What is the significance of & and * in pointers? 2
4. How does realloc() help in resizing dynamically allocated memory? 2
5. What are the actual parameters in a function? Explain with example 2
6. Differentiate between 'r', 'r+', 'w' and 'w+' modes in file operations. 2
7. What does the ftell() function return? 2
8. Which header file is used to accept a variable number of arguments in C by a function? 2

Part B (Answer any 4 questions. Each carries 6 marks)

9. Explain the concept of a structure in C. How is a structure declared and initialized? Provide an example program to illustrate structure declaration and initialization. 6
10. Write a program using pointers to determine the length of a character string. 6
11. Write a C program that demonstrates the use of malloc() and free(). Explain how memory is allocated and deallocated. 6
12. Write a program to calculate the sum of an array by passing it as a parameter to a function. 6
13. Compare sequential access and random access in file handling. Which functions are used for random access? 6
14. Compare text file and binary file handling in C. Give examples. 6

Part C (Answer any 1 question(s). Each carries 14 marks)

15. Write a C program to demonstrate passing an array as a function parameter and performing matrix addition. 14

16. Write a program to store and display employee details (name, ID, salary, department) using an array of structures.

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