

Second Semester FYUGP Degree (Sup/Imp) Examination
April 2026
KU2DSCCSC108 - ADVANCED PROGRAMMING WITH C
2024 Admission onwards

Time : 1.5 hours

Maximum Marks : 50

Section A

Answer any 6 questions. Each carry 2 marks.

1. What is the purpose of an array of structures?
2. Can a structure contain different data types? Justify your answer.
3. What is the significance of the dereference operator (*) in pointer operations?
4. How do you declare a pointer variable in C? Provide an example.
5. Which function is used to close a file in C?
6. What is the purpose of command-line arguments in C?
7. What are the formal parameters in a function? Explain with example
8. What is the difference between call by value and call by reference?

Section B

Answer any 4 questions. Each carry 6 marks.

9. Explain the usage of the ftell() and rewind() functions with examples.
10. Discuss the various in-built file handling functions in C. Provide examples for each.
11. Discuss the usage of atoi() in C. Provide an example program.
12. Write a program to calculate the sum of an array by passing it as a parameter to a function.
13. Write a program to demonstrate recursion using the Fibonacci series.
14. Explain the use of auto, register, static, and extern storage classes in C.

Section C

Answer any 1 questions. Each carry 14 marks.

15. What is a union in C? How is it different from a structure? Discuss its advantages and limitations.
16. Explain pointer arithmetic in C with examples. How does pointer arithmetic work for different data types such as integers and floating-point numbers? Provide a program to demonstrate pointer increment, decrement, and difference operations.