



Ambika

Avinashilingam Institute for Home Science and Hr Education for Women
(Deemed to be University Estd. u/s 3 of UGC Act 1956, Category 'A' by MHRD)
Re-accredited with 'A++' Grade by NAAC. Recognised by UGC Under Section 12B
Coimbatore - 641 043, Tamil Nadu, India

Continuous Internal Assessment Test II – OCTOBER 2024
I SEMESTER

Class : I UG
Major: Computer Applications

Time : 2 Hours
Max Marks: 60

23BCAC02 Problem Solving Using C

Course Outcomes:

- CO1: Understands programming methodologies by learning algorithm and flowcharts.
CO2: Obtain knowledge about the fundamentals of C programming.
CO3: Implement different operations on arrays.
CO4: Understand use of functions, pointers, structures and unions.
CO5: Gain knowledge about the basics of file handling mechanism.

Part – A

6x 1=6

Choose the correct answer

1. In C, strings are represented as CO3 K1
 - a. An array of integers
 - b. A pointer to an integer
 - c. A character array terminated with \0
 - d. A pointer to a float
2. What is the purpose of the null character ('\0') in a string? CO3 K2
 - a. It marks the end of the string.
 - b. It indicates the length of the string.
 - c. It initializes the string.
 - d. It is used for string comparison
3. What does the following function prototype indicate? CO4 K3

int add(int a, int b);

 - a. It takes one integer and returns two integers
 - b. It takes no arguments.
 - c. It takes two integers and returns an integer.
 - d. It returns an int
4. What is a recursive function in C? CO4 K2
 - a. A function that calls itself
 - b. A function that does not return a value
 - c. A function that calls other functions
 - d. A function that takes multiple arguments
5. What is the correct syntax to declare a pointer? CO5 K1

a. int ptr; b. int *ptr; c. int &ptr; d. pointer int ptr
6. What does the mode "r" in the fopen() function signify? CO5 K2
 - a. Open file for reading
 - b. Open file for writing
 - c. Open file for reading and writing
 - d. Open file for appending

Part- B

3x6=18

Answer ALL Questions

Answer should not exceed 400 words or two pages

7. a. Summarize the character array with example. CO3 K1

(or)
7. b. Discuss about the key advantages of using functions in C? CO4 K2
8. a. What is an argument in a function, and how do you pass arguments in C? CO4 K1

(or)
8. b. Explain the different categories of functions in C with example? CO4 K3
9. a. What is a pointer in C, and how is it declared? Give example. CO5 K3

(or)
9. b. Explain how command line arguments are used in C with example. CO5 K1

Part-C

3x12=36

Answer ALL questions

Answer should not exceed 800 words or four pages

10. a. Discuss about strings with example CO3 K2

(or)
10. b. Define function? How would you declare and call a function? Give example. CO4 K1
11. a. What are structures and unions in C, and how are they defined? CO4 K1

(or)
11. b. Elaborate i) Pointers and array (6) CO5 K3
ii) Function returning pointers (6) CO5 K2
12. a. Explain Input/ Output operations on File with example. CO5 K1

(or)
12. b. Define file? Explain how to open and close a file with example