

| Reg. No.: | JERSITY OF A |
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| Name:     |              |

## **University of Kerala**

First Semester Degree Examination, November 2024 Four Year Under Graduate Programme Discipline Specific Core Course

## COMPUTER APPLICATION/COMPUTER SCIENCE

UK1DSCCAP101- Problem Solving using C/ UKIDSCCSC101 – Programming using C Academic Level: 100-199

Time: 1½Hours Max.Marks:42

## Part A. Answer All Questions, Objective Type. 1 Mark Each. (Cognitive Level: Remember/Understand) 6 Marks. Time: 6 Minutes

| Qn.<br>No. | Question  | Cognitive<br>Level | Course<br>Outcome<br>(CO) |
|------------|---|--------------------|---------------------------|
| 1.         | Name the built-in function to find the reverse of a string.                                   | Remember           | CO1                       |
| 2.         | State the primary datatypes in c  | Remember           | CO1                       |
| 3.         | Identify the use of static keyword.   | Understand         | CO2                       |
| 4.         | Identify whether the following statement is an application of recursion. fact(n)=n*fact(n-1); | Understand         | CO3                       |
| 5.         | Define an array of structures.  | Understand         | CO4                       |
| 6.         | Give two examples for dynamic memory allocation methods.                                      | Understand         | CO3                       |

## Part B. Answer All Questions , Short Answer. 2 Marks Each. (Cognitive Level: Understand/Apply) 8 Marks. Time: 24 Minutes

| Qn.<br>No. | Question  | Cognitive<br>Level | Course<br>Outcome<br>(CO) |
|------------|---|--------------------|---------------------------|
| 7.         | Explain the flowchart to find sum of N numbers                                  | Understand         | CO1                       |
| 8.         | Explain an array of pointers.   | Understand         | CO3                       |
| 9.         | Illustrate the situation where you will use void keyword in function definition | Apply              | CO2                       |
| 10.        | Discuss the way of opening a text file in append mode in C.                     | Apply              | CO4                       |

Part C.
Answer all 4 Questions, choosing among options within each question.
Long Answer. 7 marks each. (Cognitive Level: Apply/Analyse/Evaluate/Create)
28 Marks. Time: 60 Minutes

| Qn.<br>No. | Question  | Cognitive<br>Level | Course<br>Outcome<br>(CO) |
|------------|---|--------------------|---------------------------|
| 11.        | a. Write an algorithm and draw the flowchart to find the sum of first N even numbers.                     | Apply              | CO1                       |
|            | OR  |                    |                           |
|            | b. Write an algorithm and draw the flowchart to check whether a triangle is a right angled triangle.      |                    |                           |
| 12.        | a. Compare different types of operators in C with examples  | Analyze            | CO2                       |
|            | OR  |                    |                           |
|            | b. Distinguish between different storage classes in C.  |                    |                           |
| 13.        | a. Write a program using recursive function to generate Fibonacci series                                  | Apply              | CO3                       |
|            | OR  |                    |                           |
|            | b. Write a program to check whether an input number is a palindrome or not.                               |                    |                           |
| 14.        | a. Examine the role of files as a data storage unit. Illustrate the statement through a suitable example. | Analyze            | CO4                       |
|            | OR  |                    |                           |
|            | b. Differentiate with suitable examples array traversal with and without using pointers.                  |                    |                           |