| **University of Kerala** | | |
| --- | --- | --- |
| Discipline: Computer Application |  | Time: 1 Hour 30 Minutes (90 Mins.) |
| Course Code: UK1DSCCAP101 |  | Total Marks: 42 |
| Course Title: Problem solving using C |  |  |
| Type of Course: DSC |  |  |
| Semester: 1 |  |  |
| Academic Level: 100-199 |  |  |
| Total Credit: 4, Theory: 3 Credit + Practical: 1 Credit |  |  |

Part A. 6 Marks. Time: 6 Minutes

Objective Type. 1 Mark Each. Answer All Questions

(Cognitive Level: Remember/Understand)

| **Qn.**  **No.** | **Question** | **Cognitive**  **Level** | **Course**  **Outcome (CO)** |
| --- | --- | --- | --- |
| 1. | Name the built in function to find length of a string | Remember | CO1 |
| 2. | List basic data types in c | Remember | CO1 |
| 3. | Show the basic use of an array | Understand | CO2 |
| 4. | Indicate whether a normal function call is an application of recursion | Understand | CO3 |
| 5. | Define array of pointers | Understand | CO4 |
| 6. | Give two examples for array declaration | Understand | CO3 |

Part B. 8 Marks. Time: 24 Minutes

Short Answer. 2 Marks Each. Answer All Questions

(Cognitive Level: Understand/Apply)

| **Qn.**  **No.** | **Question** | **Cognitive**  **Level** | **Course**  **Outcome (CO)** |
| --- | --- | --- | --- |
| 7. | Explain using flowchart the program to find largest of three numbers (program not needed) | Understand | CO1 |
| 8. | Compare the scope of global and local variables with examples | Understand | CO3 |
| 9. | Illustrate the situation where you will use void data type for function definition | Apply | CO2 |
| 10. | Demonstrate the role of file modes in c | Apply | CO4 |

Part C. 28 Marks. Time: 60 Minutes

Long Answer. 7 marks each. Answer all 4 Questions,

choosing among options within each question.

(Cognitive Level: Apply/Analyse/Evaluate/Create)

| **Qn.**  **No.** | **Question** | **Cognitive**  **Level** | **Course**  **Outcome (CO)** |
| --- | --- | --- | --- |
| 11. | a. Write algorithm and draw flowchart to find sum of N natural numbers  OR  b. Write algorithm and draw flowchart to check whether a number is prime or not. | Apply | CO1 |
| 12. | a. Compare different types of operators in C with examples  OR  b. Compare the structure and usage of switch case and if-else if. | Analyze | CO2 |
| 13. | a. Develop a program using recursive function to generate Fibonacci series  OR  b. Write a program to print the reverse of a number and sum of its digits using C. | Apply | CO3 |
| 14. | a. Interpret the differences when you copy the content of one file to another in write mode and append mode. Use suitable examples.  OR  b. Compare with suitable examples array traversal with and without using pointers. | Analyze | CO4 |

| **Cognitive Level** | **Marks** | **Percentage** |  | **Course Outcomes** |
| --- | --- | --- | --- | --- |
| Remember | 2 | 4.8 |  | CO1 |
| Understand | 8 | 19.0 |  | CO1, CO2, CO3, CO4 |
| Apply | 18 | 42.9 |  | CO1, CO2, CO3 |
| Analyse | 14 | 33.3 |  | CO2, CO4 |
| **TOTAL** | **42** | **100** |  |  |