

## FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

## Second Semester B.Sc Computer Science Degree Examination, April 2024

## BCS2B02 - Problem Solving using C language

(2022 Admission onwards)

Time: 2 hours

Max. Marks : 60

**PART A****Questions 1 to 12. Each question carries two Marks. Ceiling 20 Marks**

1. What is the use of #include statement?
2. What is meant by multi dimensional array?
3. Differentiate between entry and exit controlled loops.
4. What is the use of fseek( ) and ftell( ) functions in C?
5. What do you mean by preprocessor directive? Give an example.
6. How goto statement can be used to form a loop?
7. What is a pointer?
8. What do you mean by function prototype?
9. What is meant by dynamic memory allocation?
10. How strings are represented in C?
11. What is meant by scope of a variable?
12. Define Union.

**PART B****Questions 13 to 19. Each question carries five Marks. Ceiling 30 Marks**

13. Briefly explain the purpose of break and continue with example.
14. Write a program to read roll number, name and 3 marks of 5 students and print the total marks of each student with the entered details. Use structure.
15. Write a program to sort n numbers in descending order.
16. Differentiate between array of structures and array within a structure with example.
17. Briefly explain the various string handling functions with example.
18. Explain macros with arguments. Give an example
19. Write a program to find the factorial of a number using recursion

**PART C**

**Question 20 and 21. Answer any one question. Each question carries ten Marks.**

20. Explain various branching and looping statements in C with syntax and example.

21. What is a function? What are the different types? What are the advantages of using functions in our program? What are the various argument passing mechanisms? Illustrate with example.

**(1x10=10 Marks)**