

Level: Bachelor  
 Programme: BE  
 Course: Programming in C

Semester: Fall

Year : 2020  
 Full Marks: 100  
 Pass Marks: 45  
 Time : 3hrs.

*Candidates are required to give their answers in their own words as far as practicable.*

*The figures in the margin indicate full marks.*

*Attempt all the questions.*

1. a) Explain high level language and low level language. Briefly describe the structure of C program. 7
- b) Why algorithm and flowchart are used in programming? Draw a flowchart to find the sum of numbers between 50 to 500. 8
2. a) What are identifiers in C? Write the rules for naming identifiers. 7
- b) What are control statements? Explain all looping statements in C with examples. 8
3. a) Write a program to display sum of each row for a 3\*4 matrix. 7
- b) What are the various String Handling Functions? Write a program to check if a given string is palindrome or not. 8
4. a) List out the advantage and disadvantage of using recursive function. Write a program to find the sum of numbers from 1 to 50 using recursive function. 8
- b) Write a user-defined function to find the sum of elements of m\*n matrix and finally returns the sum to the calling function. 7
5. a) How does a function return multiple values using pointer? Illustrate with example. 7
- b) Explain about malloc(), calloc() and realloc() function with suitable example. 8
6. a) Compare union with structure. 7
- b) Why do we need structure? Write a program to input name, address, phone number, salary and department of 500 employees of a company and store them in "Employee.txt" file and display the records of those employees whose department is "Marketing" using concept of

structure.

7. Write short notes on: (Any two)

- a) Call by value and call by reference
- b) The switch statement
- c) Basic Data type in C

2×5