

Code No: **R201110**

R20

SET - 1

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY GURAJADA VIZIANAGARAM
I B. Tech I Semester Supplementary Examinations June 2025
PROGRAMMING FOR PROBLEM SOLVING USING C

(Common to all branches)

Time: 3 hours

Max. Marks: 70

Answer any **FIVE** Questions. **ONE** Question from **Each unit**

All Questions Carry Equal Marks

UNIT-I

1. a) Develop an Algorithm and flowchart to find maximum of three numbers of three Numbers using ternary operator. [7M]
b) Explain static and extern storage classes with a sample program. [7M]
(OR)
2. a) Explain about type conversion and casting in 'C'. [7M]
b) Develop an Algorithm and flowchart to find whether given number is even or odd. [7M]

UNIT-II

3. a) Differentiate between while loop and do-while loop. [7M]
b) Discuss bitwise operators in C. [7M]
(OR)
4. a) Explain the significance of 'break' and 'continue' statement with a sample program. [7M]
b) Develop a C program to design calculator using switch. [7M]

UNIT-III

5. a) Discuss declaration, initialization and accessing of 1D array. [7M]
b) Develop a C program to read a string from and print the numbers of uppercase letters, lower case letters, digits, spaces and special characters. [7M]
(OR)
6. a) Develop a C program to perform matrix multiplication. [7M]
b) Develop a C Program to that reads employee details and print them using structure. [7M]

UNIT-IV

7. a) Develop a C Program to swap two numbers using call by reference. [7M]
b) With a sample 'C' program explain the concept of passing structures through pointers. [7M]
(OR)
8. a) Discuss the concept of dynamic memory allocation. [7M]
b) Illustrate the concept of processor commands? [7M]

UNIT-V

9. a) Describe different File Handling Functions in C? [7M]
b) Explain briefly about different modes in opening a file. [7M]
(OR)
10. a) Write a 'C' program to read the content of source file and convert all upper case letters in source file into lower case letters. [7M]
b) Develop a C Program to check whether given number is prime or not using functions. [7M]
