

BACHELOR OF TECHNOLOGY (CBCS - 2023)
B. Tech. Sem-I Computer Science & Engineering-A&M : WINTER : 2024
SUBJECT: PROGRAMMING & PROBLEM SOLVING

Day : Thursday
Date : 12/12/2024

W-27617-2024

Time : 10:00 AM-01:00 PM
Max. Marks : 60

N. B. :

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Draw neat and labelled diagrams **WHEREVER** necessary.
- 4) Assume suitable data, if necessary.

Q. 1 What are the approach to solve a problem? Describe using suitable example. (10)
Also describe the role of flowchart.

OR

Q. 1 Design flow chart and algorithm for the number is even or odd. (10)

Q. 2 Explain the operators: (10)

- a) Arithmetic Operators
- b) Relational Operators
- c) Logical Operators
- d) Assignment Operator

OR

Q. 2 Design Menu driven program for the calculations of Area of different object like if user press 'T' then will calculate the area of Trangle, if user press R then calculate area of rectangle and if press C button then will calculate the area of Circle, and for others will show the invalid choice. (10)

Q. 3 a) Describe the concept of 2 D array using suitable example. (06)

b) Write a program to find the length of string. (04)

OR

Q. 3 Write a program to perform multiplication of two metrics. (10)

Q. 4 Describe call by value call by reference using suitable example. (10)

OR

Q. 4 a) What is User defined function? Explain using suitable example. (05)

b) Describe standard input output function in detail. (05)

Q. 5 a) What is Pointer? Describe Using suitable example. (05)

b) Implement array using pointer using suitable example. (05)

OR

Q. 5 Write a C program to Implement structure using pointer. Use any example. (10)

Q. 6 Write a program to create a file called emp.txt and store information about an Employee in terms of his name, age and department. (10)

OR

Q. 6 Design flowchart and implement C program for create file and store students details such as roll no, name of student, age, department and display the data. (10)

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