

BACHELOR OF TECHNOLOGY (CBCS) (2021-COURSE)
B. Tech. Sem - I Computer Science & Engineering-A&M : WINTER : 2024
SUBJECT: PROGRAMMING & PROBLEM SOLVING

Day : Thursday
Date : 12/12/2024

W-23927-2024

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) Assume suitable data **WHEREVER** necessary.
- 4) Draw neat diagrams **WHEREVER** necessary.

Q.1 Explain how a FLOW CHART helps in developing programming logic. What are the various types of symbols used in flowchart, explain their usages. (10)

OR

Q.1 What do you mean by PSEUDO-CODES? Give a PSEUDO-CODE for finding AVERAGE of set of 10 integer numbers. (10)

Q.2 Give structure of a C programme with explanations. (10)

OR

Q.2 What are the various RELATIONAL Operators in C-Programming language? (10)

Q.3 Do we need to specify the LENGTH of an array while declaring in C Program? Write a C program to input a string "STUDENT" into suitable type of array. (10)

OR

Q.3 An application needs to store total SCORE and ROLL No of 10 students into 1-D array of type integer. Write a C program to find out the HIGHEST SCORE. (10)

Roll No	1	2	-	-	10
Total Score	20	08	-	-	11

Q.4 State benefits of function-based program development. Further explain the following concept with suitable example and syntax. (10)
Function Declaration, Function Definition and Function Call.

OR

Q.4 Why do we need to provide "STRUCTURES" in C Programming? An application need to store records as per the details mentioned here. (10)
Name of Student, Roll No, Score, Mobile Number.
Use C-language and give a code for defining structure for the same.

Q.5 What are the benefits of using POINTERS in programming language? (10)

OR

Q.5 Write a C program to ADD two integer numbers using pointers. Explain each instruction using comments. (10)

Q.6 Explain why file handling is important based on the following points. (10)
Reusability, Portability, Efficiency and Storage Capacity.

OR

Q.6 Explain use of following file functions of C-language (10)
fopen (), fscanf (), fclose ().
