

BACHELOR OF TECHNOLOGY (CBCS - 2023)
B. Tech. Sem-I CS&BS : WINTER : 2023
SUBJECT : FUNDAMENTALS OF COMPUTER SCIENCE

Day : Wednesday

Time : 10:00 AM-01:00 PM

Date : 6/12/2023

W-27623-2023

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 labeled diagrams **WHEREVER** necessary.
- 5) Use of IS800, IS875, Steel Table and Calculator is **allowed**.

Q.1 Explain algorithm and flowchart also write difference between algorithm and flowchart with example. (10)

OR

Q.1 Explain the basic structure of 'C' program and explain the significance of each section. (10)

Q.2 What are different types of 'if' statements available in 'C'? Explain them with syntax and example. (10)

OR

Q.2 Explain all looping statement used in 'C' with syntax and example. (10)

Q.3 Explain all storage classes with example. (10)

OR

Q.3 Differentiate between call by value and call by reference. Also write a 'C' program to exchange two number using call by reference. (10)

Q.4 What is pointer in C programming? What are its benefits? Explain the process of declaring and initializing pointers. Give an example. (10)

OR

Q.4 What is array? Explain declaration and initialization of 2-D array. Write a program to perform addition of two 3x3 matrix. (10)

Q.5 Explain different modes of opening files with syntax and example. (10)

OR

Q.5 Explain array of structure with example. (10)

Q.6 Explain storage allocation (malloc, calloc, free, realloc) in detail. (10)

OR

Q.6 Explain open, create, close and unlink system calls. (10)
