

**BACHELOR OF TECHNOLOGY (CBCS - 2023)**  
**B. Tech. Sem-I COMPUTER SCIENCE & BUSINESS SYSTEMS : SUMMER : 2024**  
**SUBJECT: FUNDAMENTALS OF COMPUTER SCIENCE**

Day : Tuesday  
Date : 14/05/2024

**S-27623-2024**

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

**Q.1** Explain algorithm, flowchart and pseudocode also write example for finding the biggest among 2 numbers. (10)

**OR**

**Q.1** Explain the basic structure of 'C' program and explain in detail each section of it also write example to find no is odd or even. (10)

**Q.2** Explain all conditional statement with syntax and example. (10)

**OR**

**Q.2** Explain jumping statement with syntax and example. (10)

**Q.3** What is function? Why we use functions in C language? Explain function prototype with example. (10)

**OR**

**Q.3** Explain Recursion. Write a program to find factorial of a number using recursion. (10)

**Q.4** What is pointer in C programming? Explain in brief about & and \* operators (10)

**OR**

**Q.4** Explain run-time initialization of 2-D array with an example. (10)

**Q.5** Define structure and declare the 'C' structure for College contains the fields: college code, college name, year of establishment, number of courses. Initialize and display data in it. (10)

**OR**

**Q.5** Define file and explain about the types of files with example. (10)

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

**OR**

**Q.6** Explain Lseek and Fseek with example. (10)

\*\*\*\*\*