

BACHELOR OF TECHNOLOGY (C.B.C.S.) (2021-COURSE)
B. Tech. Sem - I CS& BS :SUMMER- 2022
SUBJECT : FUNDAMENTALS OF COMPUTER SCIENCE

Day : Thursday
Date : 21-07-2022

S-24133-2022

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) Use of non – programmable **CALCULATOR** is allowed.
 - 4) Assume suitable data if necessary.
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Q.1 Write an algorithm and draw flowchart to find Fibonacci series. **(10)**

OR

Q.1 Define variable. Explain any four basic types of constants with an example of each. **(10)**

Q.2 Explain the different control statements in C with syntax and example. **(10)**

OR

Q.2 Explain the use of 'Break' statement. Write a program in C to check whether a number is prime using break statement. **(10)**

Q.3 State the types of functions depending upon the categories of arguments and return statements with example. **(10)**

OR

Q.3 Describe the concept of functions and the mechanism of a functions call. Discuss the advantages of function. **(10)**

Q.4 Write a program to read an array from the keyboard, access elements of an array and copy array into another array using pointers. **(10)**

OR

Q.4 Explain 2 – D matrix representation in memory. Write a program to add (3, 3) matrix row wise and generate a (3, 1) matrix. **(10)**

Q.5 What is importance of user defined datatypes and differentiate between structure and unions with suitable example. **(10)**

OR

Q.5 Write short notes on: **(10)**
i) Array of structure
ii) Pointer of structure

Q.6 Explain difference between Macro and function. **(10)**

OR

Q.6 Explain low level I/O operations in Unix system interface. **(10)**

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