2023
B.E. (Electronics and Communication Engineering)
First Semester
CS-104: Computer Programming

Time allowed: 3 Hours

Max. Marks: 50

NOTE: Attempt <u>five</u> questions in all, including Question No. I which is compulsory and selecting two questions from each Section.

x-x-x

I   (a) Define Typecasting . List its types   (5 X 2)

   (b) Describe the term Inheritance in OOPS.

   (c) What is pointer to array? How it is defined?

   (d) List different types of Bitwise Operators.

   (e) Write an algorithm to print prime numbers from 1-100

Section –A

II   (a) What is LINUX Shell ? Explain any 5 LINUX Commands.   (5 , 5)

   (b) What are Strings ? Write a program to convert lower case string to Proper Case string.
    (Hint:Proper Case: First letter of each word is capital)

III   (a) What is the difference between if-else and switch-case? Write a program to design   (5 , 5)
    Calculator (+,-,*,/) using switch-case

   (b) Write a program to find sum of diagonals of a Matrix.

IV   (a) Write the Difference between (i) Call by Value and Call By Reference   (5 , 5)
                (ii) Static and Automatic Storage Class

   (b) What are pointers ? How they are declared ? Write a program to find Power(a^b) using
    Pointers.

P.T.O.

Section-B

V   (a) What are array of structures ? How Structures can be passed as an arguments to   (5,5)
       function. Show it with example.

    (b) Create a structure Student (Rollno ,Name , Marks).Enter 10 records.
        Write a function to search record by Rollno.

VI (a) Define fopen and fclose function. Write a program to join 2 files end to end using   (5,5)
        Command line arguments.

    (b) Define fseek (), rewind() , fprintf() , fread().

VII (a) Write a short note on Polymorphism and Encapsulation

                                                                                            (5,5)

    (b) How classes are different from Structure.

x-x-x