CLASS: BTECH/IMSC   SEMESTER: II
BRANCH: CSE/IT/EEE/ECE/MATHS & COMP./PHYSICS   SESSION : SP/2019

SUBJECT : CS101 PROGRAMMING FOR PROBLEM SOLVING

TIME: 2.00 HOURS   FULL MARKS: 25

1. The total marks of the questions are 25.
2. Candidates may attempt for all 25 marks.
3. Before attempting the question paper, be sure that you have got the correct question paper.
4. The missing data, if any, may be assumed suitably.

Q1 (a) Describe static and dynamic ways of linking and loading of program into memory.   [2]
    (b) Define Compiler. Differentiate between object code and executable code.   [3]

Q2 (a) Define BIOS.   [2]
    (b) Design a flow chart to find the roots of a given quadratic equation.   [3]

Q3 (a) Explain the difference between declaration and definition in C program   [2]
    (b) Write a C program for multiplication table of 12 using bitwise shift operator.   [3]

Q4 (a) Write a C program which will take two integer numbers as an input from user and print the [2]
         sum without using any arithmetic operator.
    (b) Write a C program to print asterisks in a pyramid structure.   [3]

Q5 (a) Write a C program to calculate the number of duplicate entries in the array.   [2]
    (b) Write a C program that reads/input any square matrix and replace value zero on the   [3]
         diagonals, 1 on the upper triangle and -1 on lower triangle of the matrix as an output.

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