B. Tech. (Sixth Semester, New CBCS) CT-02, Online Examination, 15-March-2022
(Computer Science & Engineering Branch)
Subject-Design and Analysis of Algorithm
Time Allowed:- One hour
Maximum Marks:- 15

Note: There are only short answer type questions and attempt all questions. All questions carry equal marks i.e. 3 marks.

Q1. Write an algorithm of Floyd Warshall.   **[CO-3, BTL-03, Marks-03]**

Q2. The characters a to h have the set of frequencies based on the first 8 Fibonacci numbers as follows:

      a : 1, b : 1, c : 2, d : 3, e : 5, f : 8, g : 13, h : 21

A Huffman code is used to represent the characters. What is the sequence of characters corresponding to the following code?

      110111100111010   **[CO-2, BTL-03, Marks-03]**

Q3. Write an algorithm of prim's algorithm   **[CO-2, BTL-03, Marks-03]**

Q4. Write an algorithm of 0/1 Knapsack problem.   **[CO-3, BTL-03, Marks-03]**

Q5. Write an algorithm of DFS.

                                   [CO-3, BTL-04, Marks-03]