Roll No. ☐☐☐☐☐☐☐☐☐☐☐   Total No. of Pages : 01

Total No. of Questions : 08

M.Tech. (CSE Engg.) (2018 Batch) (Sem.–2)
ADVANCE ALGORITHMS
Subject Code : MTCS-201-18
M.Code : 76055

Time : 3 Hrs.   Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :
1.Attempt any FIVE questions out of EIGHT questions.
2.Each question carries TWELVE marks.

Q1.   Compare the DFS and BFS algorithms. How the traversal differs in the two cases? Show by means of an appropriate example.

Q2.   Discuss matching in a general graph using Edmond's Blossom algorithm.

Q3.   What is a greedy algorithm? What are the properties of these algorithms? Explain the concept of Matroids? Give the solution to the maximal independent set problem.

Q4.   Explain the Strassen's Matrix Multiplication algorithm? Compare its efficiency to the simple matrix multiplication algorithm.

Q5.   What is the method for number representation? Explain number representation theorem. Discuss the method for number to modulo representation conversion in detail. Explain the application of the method via suitable example.

Q6.   Explain the Simplex algorithm in detail.

Q7.   Discuss the use of searching algorithms in solving the latest problems,

Q8.   Write an algorithm to find the inverse of a triangular matrix.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.