Roll No ....

MCADD-601
M.C.A. (Integrated), VI Semester
Examination, November 2019
Analysis Design and Algorithm
Time : Three Hours

Maximum Marks : 70

Note: i) Attempt any five questions.
   ii) All questions carry equal marks.

1. a)   What is Data Structure? Define various operations on Data Structure.

   b)   Define Algorithms and its characteristics.

2. a)   Explain Quick sort Algorithms? Discuss worst and best case of Quick sort Algorithms.

   b)   What is recurrence relations? Give recurrence relation of divide and conquer methods.

3.   Give various Graph Traversal Methods. Compare depth first and Breadth First Search Methods.

4.   Explain following terms:
   i)   FIFO Branch and Bound
   ii)   O/I Knapsack problem

5. a)   Discuss minimum cost spanning trees.

   b)   Explain single source shortest paths with talking a suitable example.

6.   What is Back Tracking? Explain 4 Queen and 8 Queen problem.

7.   Give the difference between polynomial and non polynomial time complexity?

8.   Write short notes (Any three):
   i)   P and NP type problem
   ii)   Matrix multiplication
   iii)   Dynamic programming
   iv)   Greedy methods

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