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Paper Code :DCS-209

Roll No.

**MCA-10, M.Sc. (CA)-9
2nd Year Examination, Academic Batch 2018
Design Analysis of Algorithms**

Time : 3 Hours]

[Max. Marks : 100

*Note. Attempt any **five** questions. All questions carry equal marks.*

Q. 1. Explain the Quick sort with the help of algorithm with example.

Q. 2. Write about the Queue. Explain the INSERT and DELETE operations performed on Queue with their Algorithms.

Q. 3. Describe the following:

(a). Linked Lists

(b). Binary Search Tree (BST)

Q. 4. Explain the Greedy Method in detail with the help of example.

Q.5: (a) Write down the algorithm of BFS(Breadth first Search).

(b)Write down the Floyd-Warshall algorithm

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Q.6: (a) What do you mean by the String Matching? Explain with an example.

(b)Write down the Naive algorithm for String Matching.

Q7: Write down the short notes on following.

(a) NP-Completeness Problem (b)NP-Hard Problem (c)Comparison Network

(d) Sorting Network

Q8: (a) What is the difference between DFT and FFT?

(b)Compute the DFT of the vector (0, 1, 2, 3) .