

SECTION-B

2. Explain the classes P and NP.
3. Explain Strassen's algorithm for matrix multiplication with an example.
4. Give a suitable example and explain Breadth-First search and Depth-First search algorithms.
5. What are asymptotic notations? Describe with the help of examples commonly used asymptotic notations.
6. How the dynamic algorithms differ from greedy algorithm? Explain.

SECTION-C

7. Explain the algorithm of merge sort. Compute the time complexity of merge sort. Also sort the list 415, 213, 700, 515, 712, 715 using merge sort.
8. Explain string matching. Explain Knuth-Morris-Pratt algorithm with an example.
9. Write a short note on the following :
 - a. Greedy algorithm
 - b. Randomization.