Sardar Vallabhbhai National Institute of Technology, Surat

Design and Analysis of Algorithms

End Semester Exam December 2017

Exam Date : 28/11/2017   **Exam Time :** 2:00 PM to 5:00 PM   **Total Marks :** 50

Instructions :

1. Write your roll no. and other necessary details clearly on Answer book and Question Paper.
2. Assume necessary data but give proper justification.
3. Be precise and clear in answering all questions.
4. Figure to the right indicate full marks of that question.
5. Please start answer to new question on new page.

Q-1 Answer the Following   [20]

1) Define input size.
2) Give the two major phases of performance evaluation.
3) Write the For LOOP general format.
4) Write algorithm using iterative function to fine sum of n numbers.
5) What is space complexity?
6) Define the divide an conquer method.
7) Write an algorithm using Recursive function to fine sum of n numbers.
8) Define Little Omega.
9) What is an algorithm?
10) Define worst-case step count.

Q-2 Answer the Following   [30]

1) What is the Quick sort?
2) Is insertion sort better than the merge sort?
3) Define internal path length.
4) What is Knapsack problem?
5) Describe the recurrence relation ofr merge sort?
6) What is the binary search?
7) Write any three characteristics of Greedy Algorithm?
8) What is meant by feasible solution?
9) What is the substitution method?
10) Give computing time for Bianry search?

ALL THE BEST!