

Sardar Vallabhbhai National Institute of Technology, Surat

Design and Analysis of Algorithms

Mid Semester Examination September 2017

Exam Date : 18/9/2017

Exam Time : 8:30 AM to 10:00 AM

Total Marks : 30

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.
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Q-1 Answer the Following

[12]

- 1) Write any three characteristics of Greedy Algorithm?
- 2) Define optimal solution?
- 3) Give computing time for Binary search?
- 4) Describe the recurrence relation of merge sort?

Q-2 Answer the Following

[8]

- 1) Define the divide and conquer method.
- 2) Define input size.
- 3) What is performance measurement?
- 4) Write the For LOOP general format.

Q-3 Answer the Following

[10]

- 1) Explain 0/1 Knapsack Problem and give algorithm for it.
- 2) Explain and give pseudo code for thirsty baby problem

ALL THE BEST!