FACULTY OF ENGINEERING

B. E. 3/4 (CSE) II Semester Main Examination, April/May 2007 DESIGN AND ANALYSIS OF ALGORITHMS

Time—3 Hours]

[Maximum Marks—75

Answer ALL questions of Part-A.

Answer any FIVE questions from Part-B.

PART-A

(Marks: $10 \times 2.5 = 25$)

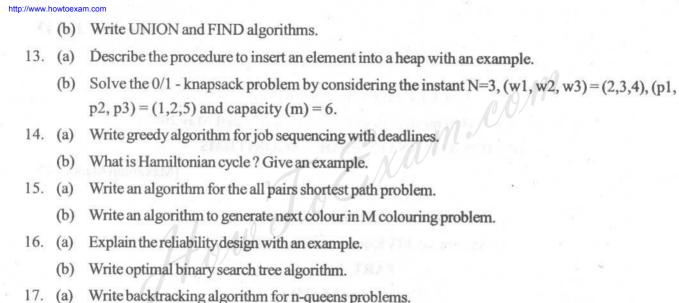
- 1. What are different notations used for algorithm analysis? Explain briefly.
- 2. Write control abstraction of greedy method.
- 3. Explain about mergable heap.
- 4. Write about NP-hard and NP-completeness problem.
- Explain about hashing.
- 6. State Cook's theorem.
- 7. State travelling sales person problem.
- 8. State node covering problem.
- 9. What is dynamic programming? Explain.
- 10. Write about knapsack problem.

PART-B

(Marks: $5 \times 10 = 50$)

- 11. (a) Explain the Prim's algorithm.
 - (b) Explain about optimal storage on tapes.
- 12. (a) Describe merge sort algorithm.

Placement papers of IT and Non IT companies, question patterns, papers with solution



(b) What is branch and bound strategy? Explain.

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