

MAY 2015

**P/ID 17460/RCK/PCAK**

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Time : Three hours

Maximum : 75 marks

PART A — (5 × 5 = 25 marks)

Answer ALL questions.

1. (a) Write on ordered list.  
Or  
(b) Discuss on abstract data types.
2. (a) Give the operations of singly linked list.  
Or  
(b) Write the importance of circular queue.
3. (a) Give the applications of trees.  
Or  
(b) Explain Graph's representation in memory.
4. (a) Write insertion sort procedure and explain.  
Or  
(b) Give the characteristics of magnetic tapes.
5. (a) Discuss about Hashing functions.  
Or  
(b) Write the basic concepts of Red-Black trees.

PART B — (5 × 10 = 50 marks)

Answer any FIVE questions.

6. Explain about polynomial representation and its operations.
  7. Write the various operations of queue and explain.
  8. Give short notes on :
    - (a) Doubly linked list
    - (b) Circular linked list.
  9. Explain the various Graph traversals.
  10. Write the solution for single source shortest path problem.
  11. Give the algorithms for Heapsort and explain.
  12. Explain about sorting with disks.
  13. Write about B-tree with its operations and examples.
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