

4633032

B.Tech. DEGREE EXAMINATION,
NOVEMBER/DECEMBER 2016.

Third Semester

Computer Science and Engineering

DATA STRUCTURES

(2009-2012 batches)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

All questions carry equal marks.

1. What are the principles in programming?
2. Define : Array.
3. List the primitive operations in stack.
4. What are generalized lists?
5. Define : Binary Tree.
6. List the operations on sets.
7. What are rectangular tables?

8. Comment on external sorting.
9. What are queries?
10. List the operations on B Tree.

PART B — (5 × 11 = 55 marks).

Answer ALL questions, ONE from each unit.

All questions carry equal marks.

UNIT I

11. Explain about pointer arrays in detail.

Or

12. Discuss any two techniques in searching.

UNIT II

13. Explain about queue in detail.

Or

14. Describe doubly linked list and its operations.

UNIT III

15. Explain Binary tree traversal algorithms.

Or

16. Discuss in detail about shortest path algorithms.

UNIT IV

17. Explain static and dynamic tables in detail.

Or

18. Discuss the algorithms for bubble and merge sort.

UNIT V

19. Describe sequential file organization in detail.

Or

20. Explain B+ Tree indexing techniques in detail.