

THREE YEAR BCAS (CBCS) DEGREE EXAMINATIONS, APRIL 2017.

FOURTH SEMESTER

DATA STRUCTURES

Time : 3 Hours

Max. Marks : 75

SECTION - A

Answer any FIVE of the following questions.

(Marks : 5 × 5 marks = 25 marks)

1. What is a data structure?
2. What are storage structures?
3. What is an ADT?
4. What is a queue?
5. What is a binary tree?
6. What is a BST?
7. What is a traversal in graphs?
8. What is a directed graph?
9. What are the uses of sorting and searching?
10. Write about bubble sort.

SECTION - B

Answer any FIVE of the following questions.

(Marks : 5 × 10 marks = 50 marks)

11. Explain primitive and non-primitive data structures.
12. Write in detail about single linked lists.
13. Explain the operations of a stack.
14. Explain priority queues and their uses.
15. Explain the array and linked representations of trees.

16. Write in detail various operations of a BST.
 17. Explain the different graph traversals with examples.
 18. Write the uses of minimal spanning trees.
 19. Explain merge sort with examples.
 20. Write in detail the process of binary searching.
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