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Register Number:
Name of the Candidate:

B.C.A. DEGREE EXAMINATION December 2014

(SECOND YEAR)

(PART-III)

230. DATA STRUCTURES AND ALGORITHM

Time: Three hours Maximum: 100 marks

SECTION-A **(8×5=40)**

Answer any EIGHT questions

1. Explain the difference between stack and queue.
2. Obtain the prefix and postfix of a+b-c*d/e
3. What is doubly linked list? Explain with an example.
4. Explain the sequential representation of queue.
5. Explain the difference between general tree and binary tree with examples.
6. Explain any two representations of binary tree.
7. Explain selection sort with an example.
8. Sort the following data using radix sort

   20,30,15,35,27,45,78,38
9. What is hashing? Explain.
10. Explain binary search algorithm with an example.

SECTION-B **(3×20=60)**

Answer any THREE questions

11. Explain the operation on stack with its algorithms.
12. Discuss the method of inserting elements in the linked list with examples.
13. Explain Huffman algorithm and its use with an example.
14. Explain quick sort algorithm with an example.
15. Discuss searching in a tree with examples.

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