

Oct-2013

Seat
No.

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कुंतल - 009

COMPUTER SCIENCE PAPER-I (NEW)

(23245) CS - 211

Data Structure - I

P. Pages : 2

Time : Two Hours

Max. Marks : 40

Instructions to Candidates :

1. Do not write anything on question paper except Seat No.
2. Answersheet should be written with blue ink only. Graph or diagram should be drawn with the same pen being used for writing paper or black HB pencil.
3. Students should note, no supplement will be provided.
4. All questions are compulsory.
5. Figures to the right indicate full marks.

1. Attempt any eight.

8

- a) What is non primitive data structure ?
- b) What is recursion ?
- c) Define stack.
- d) What is circular queue ?
- e) What are the basic format conventions used in a formulation of algorithm.
- f) List types of linked list.
- g) Why queue is called FIFO data structure ?
- h) What is file ?
- i) Define the term time complexity.
- j) Give disadvantages of linked list.

2. Attempt any four.

8

- a) Enlist applications of data structure.
- b) What is two dimensional array ?

- c) What is transaction ?
- d) Explain briefly space complexity of an algorithm.
- e) What is Peep operation on stack ?
- f) Enlist applications of stack.

3. Attempt any two.

8

- a) Write an algorithm to push an element into a stack.
- b) Explain priority queue with an example.
- c) Differentiate between linked list & array.

4. a) Attempt any two.

6

- i) What is circular linked list ? Explain circular singly linked list.
- ii) Differentiate between sequential files & index sequential files.
- iii) Convert the following infix expression into postfix expression
 $(A + B) / (C - D)$

b) What is Deque ?

2

5. Attempt any one.

8

- a) Write an algorithm to insert a node in doubly linked linear list to the left of specified node.
- b) Describe operations performed on queue.
