

Seat Number

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April 2015



खजूर - 004

COMPUTER SCIENCE PAPER - I : CS - 231
Data Structure - I (23245)

P. Pages : 2

Time : Two Hours

Max. Marks : 40

Instructions to Candidates :

1. Do not write anything on question paper except Seat No.
2. Graph or diagram should be drawn with the black ink 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. Figure to right indicate full marks.

1. Attempt any eight.

8

- a) Define Non-primitive data structure.
- b) Define term data structure.
- c) Define order notation.
- d) What is mean by analysis of algorithm for space.
- e) Enlist application of stack.
- f) What is mean by change operation on stack?
- g) Define term queue
- h) What is condition for full circular queue?
- i) What is doubly linked list?
- j) What is search operation in linked list?

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2. Attempt **any four**. 8
- Differentiate procedure & function.
 - What are advantages of algorithm analysis?
 - What do you mean by dequeue?
 - Explain stack in short.
 - Enlist disadvantages of linked list.
 - Define terms record & file.
3. Attempt **any two**. 8
- Write algorithm to insert element in circular queue.
 - Write algorithm to pop element from stack.
 - Write algorithm to insert a node in linear linked list at last.
4. a) Attempt **any two**. 6
- Discuss processing sequential file.
 - Discuss rate of growth in brief.
 - Write algorithm to search element in singly linked list.
- b) Enlist application of data structure. 2
5. Attempt **any one**. 8
- Write algo to add two polynomials.
 - Consider following expression, convert it in equivalent postfix expression, show steps.
 $(A - B) * (C / D)$.
