Seat Number

Nov-2015

कर्ता - 006

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. Figures to the right indicate full marks.

1. Attempt **any eight.** **8**

a) What is data structure?

b) Why queue is called as FIFO data structure?

c) What is linked list?

d) What is file?

e) Enlist types of data structure?

f) What is primitive data structure?

g) State application of linked list.

h) What are disadvantages of linked list?

i) What is stack?

j) What is circular linked list?

2. Attempt **any four**. 8

a) What is priority queue?

b) What is doubly linked list?

c) What is basic time analysis of an algorithm?

d) Enlist operations on linked list.

e) What is procedure and function?

f) What is Direct file?

3. Attempt **any two**. 8

a) What is difference between array and linked list?

b) Explain circular queue with suitable example.

c) Write an algorithm to push an element into a stack.

4. a) Attempt **any two**. 6

i) Explain format conventions used in the formulation of an algorithm.

ii) Explain in brief space analysis of an algorithm.

iii) Convert the following infix to postfix.
A*(B+C)/(D-E)+F

b) What is deque? 2

5. Attempt **any one**. 8

a) Explain singly and doubly linked list and operation on both with suitable example.

b) Explain in detail applications of stack.

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