

Roll No.

Total No. of Pages : 01

Total No. of Questions : 08

BCA / B.Sc. (IT) (Sem.-3)

**DATA STRUCTURES**

Subject Code : UGCA1915

M.Code : 78181

Date of Examination : 13-07-21

Time : 2 Hrs.

Max. Marks : 60

**INSTRUCTIONS TO CANDIDATES :**

1. Attempt any FIVE question(s), each question carries 12 marks.

1. Differentiate between arrays and linked list. How sorting is performed in Linked List?
2. Perform insertion and selection sort on given array.  
55, 47, 88, 12, 30, 99, 23, 65, 71
3. How to convert in-fix notation into post-fix notation? Explain.
4. What is BST? Explain its traversals.
5. What is a pointer? How dynamic memory is allocated?
6. Write a note on Threaded Binary Tree.
7. What are Deque? How it is different from priority queue?
8. Explain depth first search and breadth first search in graphs.

**Note:** Any student found attempting answer sheet from any other person(s), using incriminating material or involved in any wrong activity reported by evaluator shall be treated under UMC provisions.

Student found sharing the question paper(s)/answer sheet on digital media or with any other person or any organization/institution shall also be treated under UMC.

Any student found making any change/addition/modification in contents of scanned copy of answer sheet and original answer sheet, shall be covered under UMC provisions.