Roll No. | | | | | | | | | | |

Total No. of Pages : 02

Total No. of Questions : 16

B.Sc. (IT) / BCA (Sem.–3)

DATA STRUCTURES

Subject Code : UGCA-1915

M.Code : 78181

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.**

SECTION-A

Write briefly :

1) Dangling Pointer

2) Define Array

3) Big 'O' Notation

4) Define Stack

5) Hashing

6) Sparse Matrix

7) Reverse Polish Notation

8) out-degree

9) Sorting

10) Recursion

SECTION-B

11) What is a pointer? How dynamic memory is allocated?

12) Explain depth first search and breadth first search in graphs.

13) How to convert in-fix notation into post-fix notation?

14) How complexity of an algorithm is checked? Explain its types.

15) What is a Queue? Write algorithm to insert and delete a node in circular queue.

16) What is BST? Explain its traversals with an example.

NOTE : Disclosure of Identity by writing Mobile No. or Marking of passing request on any paper of Answer Sheet will lead to UMC against the Student.