

Roll No.

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Total No. of Pages : 02

Total No. of Questions : 16

B.Sc. (IT/Graphics & Web Designing)/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) Garbage collection
- 2) Linked List
- 3) Small 'o' Notation
- 4) Define Queue
- 5) Polish Notation
- 6) Define Heap
- 7) In-degree
- 8) AVL Tree
- 9) Searching
- 10) Binary Tree

SECTION-B

- 11) Give an example of postfix expression. How to evaluate it using stacks?
- 12) Differentiate between arrays and linked list.
- 13) Explain the working of quick sort with example.
- 14) Define hashing and hash table. Also explain the concept of collision and its resolution.
- 15) Write a note on AVL tree and B-Trees.
- 16) Write algorithms for creating a stack using linked list. How to add and delete a note from stack?

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.