

Roll No.

Total No. of Pages : 02

Total No. of Questions : 18

MCA (Sem.-1)
ADVANCED DATA STRUCTURES
Subject Code : PGCA-1952
Paper ID : 79037

Time : 3 Hrs.

Max. Marks : 70

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION - B & C. have FOUR questions each.
3. Attempt any FIVE questions from SECTION B & C carrying TEN marks each.
4. Select atleast TWO questions from SECTION - B & C.

SECTION-A

Write short notes on :

- 1) Sorting
- 2) Complexity
- 3) Algorithm
- 4) Underflow
- 5) Recursion
- 6) Garbage Collection
- 7) Prefix
- 8) Out Degree
- 9) Hash Function
- 10) KMP

SECTION-B

- 11) Explain Data Structures and its types in detail.
- 12) What is a heap and its types? How to insert and delete the nodes from heap?
- 13) Write an algorithm to perform quick sort with example.
- 14) What is hashing and hash table? How it is implemented?

SECTION-C

- 15) Explain the Dijkstra's and Kruskal Algorithms.
- 16) What is a string? Write an algorithm to check whether string is palindrome.
- 17) Discuss with example Boyer-Moore algorithm.
- 18) What is MST? How it is found? Explain.

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.