2018

MCA 2nd Semester Examination

DATA STRUCTURE LAB.

PAPER—MCA-206

Subject Code—32

(Practical)

Full Marks : 100

Time : 3 Hours

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Answer any *two* questions (on Lottery Basis). 2×35

1. Write a C program to implement different operations of stack using array. You may use switch case to implement different operations. 35

2. Write a C program to implement different operations of linear queue using array. You may use switch case to implement different operations. 35

3. Write a C program to implement sparse matrix. 35

4. Write a C program to create a single linked list and implement the following operations using functions :

(i) Display all the elements,

(ii) Insert an element at the begining of the list,

(iii) Delete the first element. 35

5. Write a C program to implement binary search technique. 35

6. Write a program to implement quick sort technique. 35

7. Write a program to implement merge sort technique. 35

8. Write a program to implement Insertion Sort Technique. 35

9. Write a program to implement different operations of Circular Queue using Array. You may use Switch Case to implement different operations. 35

10. Write a program to implement different operations of Stack using Single Linked List. You may use Switch Case to implement different operations. 35

11. Write a program to add two polynomials using Single Linked List. 35

[Viva-Voce : 20 Marks

Practical Note Book : 10 Marks]