

I.M.C.A. SEM-III (2014 COURSE) CBCS : SUMMER - 2018

SUBJECT: DATA STRUCTURES

Day: **Thursday**
Date: **03/05/2018**

Time: **02.00 PM TO 05.00 PM**
Max. Marks: 100

S-2018-1758

N.B.:

- 1) Attempt any **FOUR** questions from Section -I.
- 2) Attempt any **TWO** questions from Section – II.
- 3) Figures to the right indicate **FULL** marks.
- 4) Answers to both the sections should be written in **SAME** answer book.

SECTION-I

- Q.1** Explain applications of stack. **(15)**
- Q.2** Explain in detail Array implementation of queue. **(15)**
- Q.3** Write a program to implement circular queue using Linked List. **(15)**
- Q.4** What is binary tree? Explain Binary tree Traversals. **(15)**
- Q.5** Explain in detail searching techniques. **(15)**
- Q.6** What is Data structure? Explain types of data structures. **(15)**
- Q.7** Write short notes on: **(15)**
- a) Bubble Sort
 - b) ADT
 - c) Non-atomic Data

SECTION-II

- Q.8** Write a program to sort 20, 35, 40, 100, 3, 10, 15 using quick sort. **(20)**
- Q.9** Write an algorithm and program to find largest element from the array. **(20)**
- Q.10** Write program to find specific element from the array using binary search. **(20)**

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