

B.C.A. (2010 COURSE SEM- VI : SUMMER - 2018
SUBJECT : DATA STRUCTURES

Day : **Wednesday**
Date : **02/05/2018**

S-2018-1745

Time : **10.00 AM TO 01.00 PM**
Max. Marks : 70

N.B.:

- 1) **Q.No.1 is COMPULSORY.**
 - 2) Attempt **ANY FOUR** questions from **Q.No.2 to Q.No.7.**
 - 3) Figures to the right indicate **FULL** marks.
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- Q.1** a) What is Searching and what are its applications? [07]
b) Explain the working of Linear Search method in detail. [07]
- Q.2** Which operations can be performed on following data structures?
a) Array [07]
b) Stack [07]
- Q.3** Discuss in detail the implementation of Linear Queue data structure. [14]
- Q.4** How Stack data structure can be implemented using Linked List? Discuss in detail. [14]
- Q.5** Explain the following concepts along with appropriate examples:
a) Breadth First Search [07]
b) Conversion between Infix and Prefix expression [07]
- Q.6** Discuss in brief the applications of following data structures:
a) Stack [07]
b) Tree [07]
- Q.7** Write short notes on **ANY TWO** of the following: [14]
a) Tree Traversals
b) Quick Sort
c) Data Objects

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