

B.C.A. (2010 COURSE SEM- VI : WINTER - 2017

SUBJECT : DATA STRUCTURES

Day : **Tuesday**
Date : **14/11/2017**

Time : **10.00 AM TO 01.06 PM**
Max. Marks : 70

W-2017-1653

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 sorting and what are its applications? [07]
b) Explain the working of Bubble Sort method in detail. [07]
- Q.2** Which operations can be performed on following data structures?
a) Queue [07]
b) Linked List [07]
- Q.3** Discuss in detail the implementation of Stack data structure. [14]
- Q.4** How Queue data structure can be implemented using Linked List? Discuss in detail. [14]
- Q.5** Explain the following concepts along with appropriate examples:
a) Conversion between Infix and Postfix expression [07]
b) Depth First Search [07]
- Q.6** Discuss in brief the applications of following data structures:
a) Array [07]
b) Queue [07]
- Q.7** Write short notes on **ANY TWO** of the following: [14]
a) Binary Search
b) Recursion
c) Data Types

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