B.C.A. SEM–III (2014 COURSE) CBCS : WINTER - 2017

SUBJECT: DATA STRUCTURE

Day: **Wednesday** Time: **02.00 PM TO 05.00 PM**

Date: **15/11/2017** **W-2017-1612** Max Marks. 100

N.B.

1) Answer any **FOUR** questions from Section – **I** and any **TWO** from Section – **II**.
2) Figures to the right indicate **FULL** marks.
3) Answers to both the sections to be written in **SEPARATE** answer book.

SECTION - I

Q.1 What is Queues? Explain types of queues. **(15)**

Q.2 Explain simple search with example. **(15)**

Q.3 Explain the different tree traversal. **(15)**

Q.4 What is data structure? Explain types of data structure. **(15)**

Q.5 What is stack? Explain array implementation of stack. **(15)**

Q.6 What is a structure? Explain memory allocation for structure. **(15)**

Q.7 Write short notes on any **THREE** of the following: **(15)**

a) Binary tree
b) Atomic data
c) ADT
d) Quick sort

SECTION - II

Q.8 Write a C program to find Row–wise sum and column – wise sum of matrix. **(20)**

Q.9 Write a C program for implementing insertion sort to arrange list of integers in descending order. **(20)**

Q.10 What is linked list? Explain inserting a node and deleting a node to a list with example. **(20)**