**PG.GOVT COLLEGE FOR GIRLS, SECTOR-42, CHANDIGARH**

**Teaching Plan Odd Semester**

**Session (2017-18)**

**Class: BCA II Name of the Teacher:Ms. Anu Chawla**

**Subject: Data Structures Period : 3rd (Mon-Thur)**

**Paper : BCA-16-305 Room No : 205**

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| **S. No** | **Date From** | **Date Upto** | | **Topics to be covered** |
| Week 1 | July 22 & July 24 2017 | July 29, 2017 | | Introduction to Data Structure and Data Structure operations. |
| Week 2 | July 31 2017 | Aug 5, 2017 | | Introduction to Complexity, Applications of Data Structure, Basic data Structures.  Arrays: Introduction, Types of Array |
| Week 3 | Aug 7, 2017 | Aug 12, 2017 | | Memory representation, Applications and operations. Stacks: Introduction, memory representation, Applications and operations |
| Week 4 | Aug 14, 2017 | Aug 19, 2017 | | Linked List: Operations:-traversing, searching, memory representation, |
| Week 5 | Aug 21, 2017 | Aug 26, 2017 | | Linked List: Operations:- inserting, deleting, Applications |
| Week 6 | Aug 28, 2017 | Sept 2, 2017 | | Stacks: Introduction, memory representation |
| Week 7 | Sept 4, 2017 | Sept 9, 2017 | | Stacks: Applications and operations |
| Week 8 | Sept 11, 2017 | Sept 16, 2017 | | Queue: Introduction, Types, Memory Representation. |
| Week 9 | Sept 18, 2017 | Sept 23, 2017 | | Queue: Applications |
| Week 10 | Sept 25, 2017 | Sept 29, 2017 | | Searching: Binary and Linear Search; Sorting: Bubble sort |
| **Autumn Break (30 Sept 2017- 09 Oct 2017)**  **Mid Semester Exam (10 Oct 2017 – 17 Oct 2017)** | | | | |
| Week 11 | Oct 18, 2017 | | Oct 21, 2017 | Trees – Definition and Basic concepts, Representation in Contiguous Storage, Binary Tree, Binary Tree Traversal |
| Week 12 | Oct 23, 2017 | | Oct 28, 2017 | Searching, Insertion and deletion in Binary trees, Binary Search tree |
| Week 13 | Oct 30, 2017 | | Nov 4, 2017 | Graphs: Introduction, Memory Representation |
| Week 14 | Nov 6, 2017 | | Nov 11, 2017 | Graph Traversal (DFS and BFS) |
| Week 15 | Nov 13, 2017 | | Nov 18, 2017 | Insertion sort, Selection sort, Merge Sort |
| Week 16 | Nov 20, 2017 | | Nov 25, 2017 | Quick sort. Comparison of various Searching and Sorting algorithms. |
| Week 17 | Nov 27, 2017 | | Dec 1, 2017 | Revision |