**List of Practicals**

**Sub: Data Structures Year(2017-18)**

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| 1. | 1.1 Static implementation of Stack data structure  1.2 Two Stacks in an Array | First Week |
| 2. | Application of Stack data structure:  2.1 Postfix expression Evaluation.  2.2 Infix to Reverse Polish Notation ( Infix to Postfix)  2.3 Infix to Polish Notation ( Infix to Prefix) | Second Week |
| 3. | Static Implementation of Linear Queue data structure  3.1 Circular Queue with sacrificing an element  3.2 Circular Queue without sacrificing an element | Third Week |
| 4. | Linked List Implementation | Fourth Week |
| 5. | 5.1 Sparse Matrix Implementation using LL  5.2 Polynomial Operations using LL | Fourth Week |
| 6. | 6.1 Dynamic implementation of Stack  6.2 Dynamic implementation of Queue | Fifth Week |
| 7. | 7.1 Circular Linked List  7.2 Stack using CLL  7.3 Queue using CLL | fifth Week |
| 8. | 8.1 Stack using Doubly LL  8.2 Queue using Doubly LL | Sixth Week |
| 9. | Implementation of Priority Queue | Sixth Week |
| 10. | 10.1 Static implementation of Dequeue  10.2 Dynamic implementation of Dequeue | Eighth Week |
| 11. | 11.1 Implementation of BST( insertion, deletion, traversal)  11.2 Expression Tree | Ninth Week |
| 12. | Graph Creation and Traversal | 10th Week |
| 13. | Sorting Techniques  13.1 Bubble , Selection and Insertion Sort  13.2 Quick Sort and Merge Sort | 10th Week  11th Week |
| 14. | Searching Techniques  14.1 Linear Search  14.2 Binary Search | 11th Week |
| 15. | **Advanced Data Structures**  AVL tree Implementation (2-3-4 tree)  Tries Implementation | 12th Week |
| 16. | B tree Implementation  Splay Tree Implementation | 13th Week |