

**PANIPAT INSTITUTE OF ENGINEERING AND TECHNOLOGY  
PANIPAT**

**Department of Computer Science & Engineering**

**LESSON PLAN**

**Name: - Ms. Shivani**

**Subject Name: - Data Structures**

**Branch/Semester: - 3<sup>rd</sup> SEM**

**Subject Code:-CSE-203N**

<b>S.No.</b>	<b>Lecture No.</b>	<b>Topics to be covered</b>	<b>Planned on</b>	<b>Covered On</b>	<b>Remarks</b>
1.	L-1	Introduction to Data Types, Data Structures ,Operations on Data Structures	16-7-19		
2.	L-2	Analyses of Algorithms, Worst, Best and Average Case Analyses.	18-7-19		
3.	L-3	Asymptotic Notations and its examples & Recursion	22-7-19		
4.	L-4	Arrays, LB, UB, Finding address element in one dimensional array and 2 D array	23-7-19		
5.	L-5	Insertion and deletion and traversing operation on linear array.	25-7-19		
6.	L-6	Three dimensional array, Finding element address RMO, CMO	29-7-19		
7.	L-7	Sparse matrix, Representation of sparse matrix, Transpose of sparse matrix.	30-7-19		

8.	L-8	Searching from array using Linear and Binary Searching Algorithm	1-8-19		
9.	L-9	Bubble sort, selection sort, Insertion sort, Radix Sort	5-8-19		
10.	L-10	Stack, LIFO, Push operation and pop operation	6-8-19		
11.	L-11	Conversion from infix to postfix expression	8-8-19		
12.	L-12	Conversion from infix to prefix expression, prefix to postfix	13-8-19		
13.	L-13	Conversion from postfix to prefix expression, prefix to infix, Evaluation of postfix and prefix expression	19-8-19		
14.	L-14	Implementation of quick sort and applications of queue	20-8-19		
15.	L-15	Linear queue, circular queue, insertion and deletion	22-8-19		
16.	L-16	DEQUE Insertion , deletion <b>content beyond syllabus</b>	26-8-19		
17.	L-17	Priority Queues and Its Implementation	27-8-19		
18.	L-18	Applications of queues	29-8-19		
19.	L-19	Creation of linked list,	2-9-19		

		implementation			
<b>20.</b>	<b>L-20</b>	Traversing of linked list, Insertion as first node in linked list.	3-9-19		
<b>21.</b>	<b>L-21</b>	Insertion as last node , at a specific position using node number and node info.	9-9-19		
<b>22.</b>	<b>L-22</b>	Deletion as first node , Deletion as last node , deletion at specific position.	10-9-19		
<b>23.</b>	<b>L-23</b>	Doubly linked list creation, insertion as first node and insertion as last node	12-9-19		
<b>24.</b>	<b>L-24</b>	Insertion at specific position, deletion as first node, deletion as last node.deletion at specific location.	16-9-19		
<b>25.</b>	<b>L-25</b>	Circular linked list creation, traversing, insertion and deletion	17-9-19		
<b>26.</b>	<b>L-26</b>	Implementation of linked stack and linked queue.	19-9-19		
<b>27.</b>	<b>L-27</b>	Basic tree Terminology, representation of Binary Tree, Tree traversal basic.	1-10-19		
<b>28.</b>	<b>L-28</b>	Preorder, inorder traversal,	3-10-19		

		post order traversal.			
29.	L-29	Creation of tree from traversals.	7-10-19		
30.	L-30	Representation of infix and prefix and postfix expression using tree	10-10-19		
31.	L-31	AVL TREE, Insertion and deletion in AVL tree.	14-10-19		
32.	L-32	Heap Sort implementation	<b>15-10-19</b>		
33.	L-33	Introduction to B-Tree , B+ tree, insertion and deletion	<b>24-10-19</b>		
34.	L-34	Threaded Binary trees, Multi-way search trees,	4-11-19		
35.	L-35	Graph terminology, memory representation of graph,	5-11-19		
36.	L-36	Graph traversal BFS and DFS	7-11-19		
37.	L-37	MST, Prims and Kruskal Algorithm	11-11-19		
38.	L-38	Dijkstra's algorithm for finding shortest path in graph <b>content beyond syllabus</b>	14-11-19		

<b>39.</b>	<b>L-39</b>	Floyd warshall Algorithm	18-11-19		
<b>40.</b>	<b>L-40</b>	Implementation of Merge sort	19-11-19		

(COURSE INCHARGE)