SARASWATI MAHILA MAHAVIDHYALAYA, PALWAL

LESSON-PLAN

Class: BCA 4TH SEM   **Semester: EVEN**

Subject: Data Structure-II   **Session: 2021-22**

Lecture Number	Topic
1-18	**UNIT 1**
	Tree: Header nodes, Threads, Binary search trees, Searching, Insertion and deletion in a Binary search tree, AVL search trees, Insertion and deletion in AVL search tree, m-way search tree, Searching, Insertion and deletion in an m-way search tree, B-trees, Searching, Insertion and deletion in a B-tree, B+ tree, Huffman's algorithm, General trees.
19-33	**UNIT 2**
	Graphs: Warshall's algorithm for shortest path, Dijkstra algorithm for shortest path,Operations on graphs, Traversal of graph, Topological sorting.
34-50	**UNIT 3**
	Sorting: Internal & external sorting, Radix sort, Quick sort, Heap sort, Merge sort, Tournament sort, Searching: Liner search, binary search, merging, Comparison of various sorting and searching algorithms on the basis of their complexity.
51-70	**UNIT 4**
	Files: Physical storage devices and their characteristics, Attributes of a file viz fields, records,Fixed and variable length records, Primiry and secondary keys, Classification of files, File operations, Comparison of various types of files, File organization: Serial, Sequential,Indexed-sequential, Random-access/Direct, Inverted, Multilist file organization. Hashing: Introduction, Hashing functions and Collision resolution methods

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