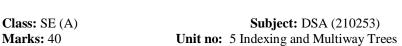


JSPM's

Bhivarabai Sawant Institute of Technology & Research, Wagholi Department of Computer Engineering Academic Year 2020-21 Semester -II





Two Mark One Sentence Answer Question (2M)

ANSWER KEY OF 20 QUESTIONS OF 2 MARKS

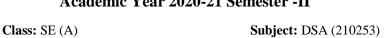
Q.1	What Is Indexing
Ans:	Indexing is used to speed up the retrieval Records.
Q.2	List the Indexing technique?
Ans:	1) Cylinder-surface indexing 2) hashed Indexing 3) Tree indexing 4) trie Indexing.
Q.3	Which data structure Used In Multiway Tree?
Ans:	Array
Q.4	What is Main Advantage of BST?
Ans:	The BST Gives Less Time Complexity In Terms of Searching and Deletion.
Q.5	What is Multiway Search Tree?
Ans:	In Multiway Search tree Of order m is an Ordered tree Where Each Has at the Most m children.
Q.6	Let m (Order)=5, Then How many Childs To each Node Has?
Ans:	5 Childs.
Q.7	If The Order Is 5, So How many keys can Each Node Contain?
Ans:	If Order is 5 then, Each node Has (m/2)-1 Keys I.e 2 Keys.
Q.8	How We Can Store (order) The keys in Each Node?
Ans:	The Keys in Each Node Are in Ascending Order.
Q.9	What are the feature Of M-Way Search tree?
Ans:	The M-Way Search tree Are Generalized Version Of Binary Search Tree.
Q.10	What Is B-Tree?
Ans:	A B-tree is a tree data structure that keeps data sorted and allows searches, insertions, and deletions in logarithmic amortized time.
Q.11	What Is Trie Tree?

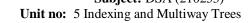


Marks: 40

JSPM's

Bhivarabai Sawant Institute of Technology & Research, Wagholi Department of Computer Engineering Academic Year 2020-21 Semester -II







Two Mark One Sentence Answer Question (2M)

ANSWER KEY OF 20 QUESTIONS OF 2 MARKS

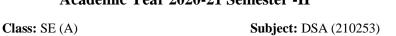
Ans:	Trie is an efficient information retrieval data structure. Using Trie, search complexities can be brought to optimal limit (key length).
Q.12	List Two The That Include In trie tree?
Ans:	1) Map for Store The Key value Pair. 2) Boolean is Use to notate The End Of String in Trie Tree.
Q.13	Write A Short Note On Map(Data-structure)?
Ans:	A map is an ADT (Abstract Data Type) where key-value pair (k-v) are stored in an array. The 'key' is an identifier for some kind of data, and the 'value' is the content that is being identified or saved.
Q.14	In Trie Tree, Is it necessary That Every New String Insertion starts From ROOT Node? If Yes Why?
Ans:	Yes. Because It Must to Insert The Data From Root Node For reuse The Alphabet Which are Already Exist in trie Tree.
Q.15	What Is Red-Black Tree?
Ans:	Red-Black Tree is a self-balancing Binary Search Tree (BST) where every node follows following rules. 1) Every node has a color either red or black. 2) Root of tree is always black. 3) There are no two adjacent red nodes (A red node cannot have a red parent or red child).
Q.16	What Is Splay tree?
Ans:	A splay tree is a self-balancing binary search tree with the additional property that recently accessed elements are quick to access again.
Q.17	What Are The Special Operation Performed In Splay Tree?
Ans:	The Operation Performed In Splay Tree is Splaying Operation I.eZig step, Zig-zig step, Zig-zag step.
Q.18	List The Application Of Splay Tree?
Ans:	Implementing The Garbage And Cache Collection Algorithms.
Q.19	What Is AA Tree?
Ans:	AA trees use the concept of levels to aid in balancing binary trees. The level of node (instead of color) is used for balancing information.
	What Are The Properties Of AA Tree?



Marks: 40

JSPM's

Bhivarabai Sawant Institute of Technology & Research, Wagholi Department of Computer Engineering Academic Year 2020-21 Semester -II



Unit no: 5 Indexing and Multiway Trees



Two Mark One Sentence Answer Question (2M)

ANSWER KEY OF 20 QUESTIONS OF 2 MARKS

Ans:	-The level of every leaf node is one.
	-The level of red nodes are same as the level of their parent nodes and the links are called horizontal
	links.
	-The level of black nodes are one less than the level of their parent node.
Q.21	What Is Heap?
Ans:	A Heap is a special Tree-based data structure in which the tree is a complete binary tree.
Q.22	What Is Time Complexity Of Heap Sort?
	Time complexity of heapify is O(N*LogN). Time complexity of create And Build Heap() is O(N)
Ans:	and overall time complexity of Heap Sort is O(N*LogN) where N is the number of elements in the
	list or array.
Q.23	What is a max Heap?
Ans:	Max-Heap: In a Max-Heap the key present at the root node must be greatest among the keys present
	at all of it's children.
Q.24	What is a min Heap?
Ans:	Min-Heap: In a Min-Heap the key present at the root node must be minimum among the keys present
	at all of it's children.