



# G H RAISONI COLLEGE OF ENGINEERING NAGPUR

(An Autonomous Institute affiliated to Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur)

CRPF Gate No.3, Hingna Road, Digdoh Hills, Nagpur. Maharashtra-440016 (India)

## Course wise Teaching Plan for Session : Summer Term 2018

Course : Data Structure Using C

Faculty : npurohit - Neha Purohit

Unit	Topic Code	Topic Covered	Date	Course	Section
1	1	Introduction to Arrays, Linear arrays, Arrays as ADT, Representation of linear in memory	02/05/2018	BCSL201	A
1	2	Inserting & deleting, Traversing Linear Arrays,	03/05/2018	BCSL201	A
1	3	Sorting: Bubble sort,	03/05/2018	BCSL201	A
1	4	Searching: Linear search, Binary search	03/05/2018	BCSL201	A
1	5	Multidimensional arrays, Representation of Polynomials using Arrays.	04/05/2018	BCSL201	A
1	6	Record & Pointers, Pointer arrays,	04/05/2018	BCSL201	A
1	7	Dynamic memory management, Records, Record structures, Representation of records in memory.	04/05/2018	BCSL201	A
1	8	Parallel Arrays, Matrices, Sparse Matrices.	07/05/2018	BCSL201	A
1	9	Programs on Array, Sorting & searching	09/05/2018	BCSL201	A
6	10	Introduction to Sorting, Insertion Sort, Selection Sort	10/05/2018	BCSL201	A
6	11	Merging, Merge-Sort.	10/05/2018	BCSL201	A
6	12	Shell Sort, Radix Sort, Sorting Techniques Comparison	10/05/2018	BCSL201	A
6	13	Searching and Data Modification, Hashing	11/05/2018	BCSL201	A
6	14	Programs on Sorting & searching	11/05/2018	BCSL201	A
2	15	Introduction to linked list, Representation of linked Lists in Memory (Video Lecture)	11/05/2018	BCSL201	A
2	16	Program on Linked list	14/05/2018	BCSL201	A
2	17	Insertion in to a linked list, Deletion from a linked list.	16/05/2018	BCSL201	A
2	18	Traversing a Linked list, Searching a linked list.	17/05/2018	BCSL201	A
2	19	Memory allocation, Garbage collection.	17/05/2018	BCSL201	A



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2	20	Types of Linked list & their Use	17/05/2018	BCSL201	A
2	21	Insertion and Deletion from a Circularly linked list.	18/05/2018	BCSL201	A
2	22	Two way lists or Doubly Linked List.	18/05/2018	BCSL201	A
2	23	Doubly Linked List Programs	18/05/2018	BCSL201	A
2	24	Exercise on Linked list	21/05/2018	BCSL201	A
3	25	Introduction to Stacks, Array representation of stacks.	23/05/2018	BCSL201	A
3	26	Linked representation of stacks. Stacks as ADT.	24/05/2018	BCSL201	A
3	27	Arithmetic expression. Polish Notation. (Video Lecture)	24/05/2018	BCSL201	A
3	28	Applications of Stacks. Recursion.	24/05/2018	BCSL201	A
3	29	Towers of Hanoi, Implementation of recursive procedures by stacks.	25/05/2018	BCSL201	A
3	30	Linked Representation of Queues, Queues as ADT.	25/05/2018	BCSL201	A
3	31	Circular of Queues, Deques, Priority Queues, Applications of Queues	25/05/2018	BCSL201	A
3	32	Programs on Prefix, Postfix and Infix	28/05/2018	BCSL201	A
4	33	Introduction to Non Linear Data Structure, Header Nodes; Binary tree , Binary Search Trees	30/05/2018	BCSL201	A
4	34	Implementation of Tree using Array & Linked List	31/05/2018	BCSL201	A
4	35	Introduction to Binary Trees. Representing Binary Tree in Memory	31/05/2018	BCSL201	A
4	36	Searching and Inserting in Binary Search Trees, Deleting in a Binary Search Tree, Threads , Threaded Binary Trees	31/05/2018	BCSL201	A
4	37	Traversing Binary Trees, Traversal Algorithms Using Stacks	01/06/2018	BCSL201	A
4	38	B-tree & B++ Tree, AVL Tree (Insertion & Deletion Algorithm)(Video Lecture)	01/06/2018	BCSL201	A



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Unit	Topic Code	Topic Covered	Date	Course	Section
4	39	Balanced Binary Trees, AVL Search Trees.	01/06/2018	BCSL201	A
4	40	Insertion in an AVL Search Tree , Deletion in an AVL Search Tree	04/06/2018	BCSL201	A
4	41	Programs on Binary Search Tree	06/06/2018	BCSL201	A
4	42	Programs on Traversal of tree	07/06/2018	BCSL201	A
4	43	Introduction to graphs , Graph Theory, Terminology	07/06/2018	BCSL201	A
5	44	Sequential Representation of Graphs	07/06/2018	BCSL201	A
5	45	Adjacency Matrix; Path Matrix, Linked Representation of a Graph,	08/06/2018	BCSL201	A
5	46	Operations on Graphs. Traversing a Graph, Warshall's Algorithm; Shortest Paths.	08/06/2018	BCSL201	A
5	47	Prims & Kuskals Algorithm	08/06/2018	BCSL201	A