B. Sc. (Computer Science) SEMESTER-III

Paper-I

(DATA STRUCTURES)

Unit I
Introduction to Data Structures
https://www.youtube.com/watch?v=zSxdn_AQb4g
By Dr.Mrs.Snehal Narale

Linked list
Introduction to Linked List | Need of Linked List | DSA Tutorials - YouTube

Operation on single linked list (insert node)
Single Linked List (Inserting a Node at the Beginning) - YouTube By Neso Academy

Types of linked list
Types of Linked List in Data Structures | DSA Full Course - YouTube By Jenny's Lectures CS IT

All possible Operation On Single and Double linked list using Dynamic Representation ,
https://www.youtube.com/watch?v=IiL_wwFIuaA   by Bhanu Priya

Polynoimal representation and its Manipulation
https://www.youtube.com/watch?v=eppL94aNwBI&list=PLBlnK6fEyqRgFNP3HnaVayBYev4SGPwJs   By Neso Academy

https://www.youtube.com/watch?v=LWzZj3mAbPA
 by IT Akademiya

Unit II

Stack terminology and its operation
https://www.youtube.com/watch?v=-dXe-OcvYgQ
By Dr.Mrs.Snehal Narale

Infix to postfix using Stack
https://www.youtube.com/watch?v=PAceaOSnxQs By Jenny's Lectures CS IT

Infix to postfix conversions example
https://www.youtube.com/watch?v=8QxlrRws9OI By Jenny 's Lectures CS IT

Infix to prefix using Stack
https://youtu.be/8QxlrRws9OI?si=xSWbrwVR8ZWyhTiO By Jenny's Lectures CS IT

Recursion ,Problem on Recursion
https://youtu.be/y9fkXBNhPh4?si=RiqCKLTkgSzzAVq7 By Jenny's Lectures CS IT

Quick Sort - https://youtu.be/QN9hnmAgmOc?si=tnG6GWTGJsXugUnD by Jenny's lectures CS IT

Problem on Tower of Hanoi
https://youtu.be/q6RicK1FCUs?si=vNT5yn4MgR7mXicZ By Abul Bari Lectures

Unit III
Queue:Circular Queue ,Dequeue and priority Queue
https://youtu.be/dn01XST9-bI?si=v4q8RaUIT_ubpYhb By Jenny's Lectures
https://youtu.be/pqg0SOPRlJ4?si=Oe-kRm3LPP1sdGl8 By Jenny's Lectures

Operations of above Structure using Array and Linked Representation.
https://www.youtube.com/watch?v=AHxAeERVZxw
By Dr.Mrs.Snehal Narale

Sorting And Searching :- Insertion sort method &Selection sort example
https://www.youtube.com/watch?v=8QxlrRws9OI By Jenny's Lectures CS IT

Merge sort example
https://www.youtube.com/watch?v=tn9hxD8gx2M By Gate Smarterand

Hash Table And Collision Resolution Techinque
https://youtu.be/zeMa9sg-VJM?si=fJ2OYvh4FmK3fII5 By Jenny's Lectures

Hashing Techniques
https://www.youtube.com/watch?v=wWgIAphfn2U&list=PLqM7alHXFySGwXaessYMem
AnITqlZdZVE By GeeksforGeeks

Unit IV
Representation of Binary Tree in memory
https://youtu.be/zeMa9sg-VJM?si=Wro_NdsszOaAlo3t By Jenny's Lectures

Traversing the Binary Tree
https://youtu.be/-b2lciNd2L4?si=KcyXDHMiY5FmPl1S By Jenny's Lectures

Binary Search Tree and Binary Tree
https://www.youtube.com/watch?v=7vw2iIdqHlM&t=3s By codecherry

Operation on Binary Search Tree
https://youtu.be/cySVml6e_Fc?si=Row2CCxpiXqDroqc By Jenny's Lectures

Insertion and deletion in Binary tree
https://www.youtube.com/watch?v=cySVml6e_Fc By Jenny's Lectures CS IT

Construction of Binary Tree from (Preorder ,Inorder and Postorder traversal)
https://www.youtube.com/watch?v=s5XRtcud35E&t=51s By Jenny's Lectures CS IT

Heap Tree and operation on Heap Tree
 https://youtu.be/NEtwJASLU8Q?si=WMEi6k2CBL4G77aW By Jenny's Lectures

Heap Sort Method
 https://youtu.be/Q_eia3jC9Ts?si=LcS0fa2nLdHXpyRi By Jenny's Lectures

Graphs:- Linked list and Matrix Representation
 https://youtu.be/5hPfm_uqXmw?si=4c2Kc9ou8qgZo5TU By Jenny's Lectures

Traversing Graphs:- BFS and DFS Graph Traversals| Breadth First Search and Depth First Search

https://www.youtube.com/watch?v=vf- cxgUXcMk&t=244s By by Jenny's Lectures CS IT

Graph representation

https://www.youtube.com/watch?v=5hPfm_uqXmw By by Jenny's Lectures CS IT

Tree in data structure

https://www.youtube.com/watch?v=YAdLFsTG70w By by Jenny's Lectures CS IT