

Subject :-Analysis of Algorithms(AOA)

<b>Module-1 INTRODUCTION</b>	
INTRODUCTION	<a href="https://www.youtube.com/watch?v=0IAPZzGSbME">https://www.youtube.com/watch?v=0IAPZzGSbME</a>
Asymptotic Notations(Big Oh, Omega, Theta)	<a href="https://www.youtube.com/watch?v=A03ol0znAoc">https://www.youtube.com/watch?v=A03ol0znAoc</a>
Time Complexity	<a href="https://www.youtube.com/watch?v=9TIHvipP5yA">https://www.youtube.com/watch?v=9TIHvipP5yA</a>
recurrence Relations	<a href="https://www.youtube.com/watch?v=4V30R3l1vLI">https://www.youtube.com/watch?v=4V30R3l1vLI</a>
substitution method	<a href="https://www.youtube.com/watch?v=1K9ebQJosvo">https://www.youtube.com/watch?v=1K9ebQJosvo</a>
recurrence tree method	
Master method	<a href="https://www.youtube.com/watch?v=QynWkEj0S-s">https://www.youtube.com/watch?v=QynWkEj0S-s</a>
Master method examples	<a href="https://www.youtube.com/watch?v=kGcO-nAm9Vc">https://www.youtube.com/watch?v=kGcO-nAm9Vc</a>
<b>Module-2 DIVIDE AND CONQUER APPROACH</b>	
DIVIDE AND CONQUER	<a href="https://www.youtube.com/watch?v=2Rr2tW9zvRg">https://www.youtube.com/watch?v=2Rr2tW9zvRg</a>
Merge sort	<a href="https://www.youtube.com/watch?v=mB5HXBb_HY8">https://www.youtube.com/watch?v=mB5HXBb_HY8</a>
Quick sort	<a href="https://www.youtube.com/watch?v=-qOVVRIZzao">https://www.youtube.com/watch?v=-qOVVRIZzao</a>
Finding minimum and maximum algorithm and their analysis	<a href="https://www.youtube.com/watch?v=AymrLuG7HH0">https://www.youtube.com/watch?v=AymrLuG7HH0</a>
Analysis of Binary search	<a href="https://www.youtube.com/watch?v=C2apEw9pgtw">https://www.youtube.com/watch?v=C2apEw9pgtw</a>
<b>Module-3 Greedy Method Approach</b>	
General Method	<a href="https://www.youtube.com/watch?v=ARvQcqJ_-NY">https://www.youtube.com/watch?v=ARvQcqJ_-NY</a>
Single source shortest path: Dijkstra Algorithm	<a href="https://www.youtube.com/watch?v=XB4MlexjvY0">https://www.youtube.com/watch?v=XB4MlexjvY0</a>
Fractional Knapsack problem,	<a href="https://www.youtube.com/watch?v=oTTzNMHM05I">https://www.youtube.com/watch?v=oTTzNMHM05I</a>
Job sequencing with deadlines,	<a href="https://www.youtube.com/watch?v=zPtI8q9gvX8">https://www.youtube.com/watch?v=zPtI8q9gvX8</a>
Minimum cost spanning trees: Kruskal and Prim's algorithms	<a href="https://www.youtube.com/watch?v=4ZIRH0eK-qQ">https://www.youtube.com/watch?v=4ZIRH0eK-qQ</a>
<b>Module -4 Dynamic Programming Approach</b>	
General Method,	<a href="https://www.youtube.com/watch?v=5dRGRueKU3M">https://www.youtube.com/watch?v=5dRGRueKU3M</a>
Multistage graphs,	<a href="https://www.youtube.com/watch?v=9iE9Mj4m8jk">https://www.youtube.com/watch?v=9iE9Mj4m8jk</a>

Single source shortest path: Bellman Ford Algorithm	<a href="https://www.youtube.com/watch?v=FtN3BYH2Zes">https://www.youtube.com/watch?v=FtN3BYH2Zes</a>
All pair shortest path: Floyd Warshall Algorithm,	<a href="https://www.youtube.com/watch?v=oNI0rf2P9gE">https://www.youtube.com/watch?v=oNI0rf2P9gE</a>
Assembly-line scheduling Problem 0/1 knapsack Problem,	
Travelling Salesperson problem,	<a href="https://www.youtube.com/watch?v=XaXsJJh-Q5Y">https://www.youtube.com/watch?v=XaXsJJh-Q5Y</a>
Longest common subsequence	<a href="https://www.youtube.com/watch?v=sSno9rV8Rhq">https://www.youtube.com/watch?v=sSno9rV8Rhq</a>
<b>Module -5 Backtracking and Branch and bound</b>	
<b>Backtracking</b>	<a href="https://www.youtube.com/watch?v=DKCbsiDBN6c">https://www.youtube.com/watch?v=DKCbsiDBN6c</a>
Graph Coloring Problem - Backtrackin	<a href="https://www.youtube.com/watch?v=052VkkHlaQ4">https://www.youtube.com/watch?v=052VkkHlaQ4</a>
N Queens Problem using Backtracking	<a href="https://www.youtube.com/watch?v=xFv_Hl4B83A">https://www.youtube.com/watch?v=xFv_Hl4B83A</a>
Sum of subsets,	<a href="https://www.youtube.com/watch?v=kyLxTdsT8ws">https://www.youtube.com/watch?v=kyLxTdsT8ws</a>
<b>Branch and bound</b>	<a href="https://www.youtube.com/watch?v=3RBNPc0_Q6g">https://www.youtube.com/watch?v=3RBNPc0_Q6g</a>
Traveling Salesman Problem - Branch and	<a href="https://www.youtube.com/watch?v=1FEP_sNb62k">https://www.youtube.com/watch?v=1FEP_sNb62k</a>
15 Puzzle problem	<a href="https://www.youtube.com/watch?v=l6bjqCDK3Kg">https://www.youtube.com/watch?v=l6bjqCDK3Kg</a>
<b>Module -6 String Matching Algorithms</b>	
The Naive string-matching algorithm	<a href="https://www.youtube.com/watch?v=k7UpWkVvajM">https://www.youtube.com/watch?v=k7UpWkVvajM</a>
The Rabin Karp algorithm	<a href="https://www.youtube.com/watch?v=qQ8vS2btsxl">https://www.youtube.com/watch?v=qQ8vS2btsxl</a>
The Knuth-Morris-Pratt algorithm	<a href="https://www.youtube.com/watch?v=V5-7GzOfADQ">https://www.youtube.com/watch?v=V5-7GzOfADQ</a>