#### DAA THEORY

#### UNIT 1

Imp-

//Theory around 5 marks

Asymptotic notations most important

//some code will be given...uski time complexity find karo around 5 marks

MARKS-10

### UNIT 2

Divide and Conquer and Greedy Method Characteristics, analysis methodology, merge sort, quick sort, binary search, large integer multiplication. General characteristics of greedy algorithms, Prim"s algorithm, Kruskal"s algorithm, Dijkstra"s algorithm, Heap Sort, job sequencing with deadlines/activity selection problem, optimal merge patterns, Knapsack problem

Imp-

//Theory

Div and conquer

greedy algorithm

Dono ka difference, ya characteristics, features, methodology

//Algorithm

Merge Quick

Basically short codes can also come

//Pseudo code

Prims Krushkals Dijk

Or working can also be asked inki (explanation using example...basically dry run)

//Numericals

Knapsack using Greedy

MARKS-14

#### UNIT 3

Dynamic Programming General strategy, principle of optimality,

Warshall"s and Floyd"s algorithm, optimal binary search trees, Knapsack problem,

Travelling Salesperson problem, flow shop scheduling

Imp-

//Numericals

Knapsack ke saare ways (optimal binary search trees, matrix, dynamic approaches basically)

Warshal Fluid

Flowshop

//Theory

Features of Dynamic Programming

Principal of Optimality

TSP ki theory ka much more chance hai than any numerical uspe

MARKS- 13

# UNIT 4

Backtracking and Branch- BoundGeneral strategy, generic recursive backtracking algorithm, iterative backtracking method, 8-queens problem, graph coloring, Hamiltonian cycle, Knapsack Problem.0/1 knapsack problem LC branch and bound and FIFO branch bound solution (isse nahi aayega yeh unit me) Imp-

//Theory

Diff between backtracking and branch-bound ya inke separate characteristics ya separate definitions/explanations

//Refer Queen's problem Codetantra ka hi //Graph Colouring which class me karaaya tha //Refer Hamiltonian cycle from codentantra too

MARKS-5

### UNIT 5

NP-Hard And NP-Complete ProblemsAlgorithms, Non-Deterministic Polynomial time (NP) decision problems, Cooks theorem, NP-complete problems-satisfiability problem.

Imp- //Completely theory NP-Hard NP-Complete ki theory ya difference aise me Do iss unit ki theory poori
MARKS- 3
TOTAL MARKS - 45
DAA PRACTICAL EXAM
10 marks journal
Kaafi big codes ke parts hi poochenge Short waale codes poore aayenge
Short waale codes poore aayenge

# **CO THEORY**

# UNIT 1

History not coming skip it
Von Neumann coming
Bus structure
Diagram of all components waala mbr waala
Booths algorithm to aayega hi
IEEE Standard importantttttt
Restoring non-restoring
Floating point imp
Around 5 theory baaki numericals
This Unit is V V Important
MARKS- 13

## UNIT 2

Address instructions
Addressing modes
Pipelining
8086 waala important
//no numericals here
So complete notes hi read karo this unit ke
MARKS- 10

### UNIT 3

Hard wired Control Unit design MCU Microprogrammed Control Unit (BUT BASICALLY POORA HI AS BAAKI ISHI KE SUBTOPICS HAI) WITH DIAGRAMS DOOOOOOOOOOO MARKS- 5

### UNIT 4

//Nums:

Page replacement Memory Design Cache mapping

//Theory

Memory hierarchy That triangle diagram 2-3 marks

Virtual memory

TLB

Page replacement theory and algos

Segmentation theory algos

Types of memories

Cache ke teeno topics

This unit is V V Important too

MARKS-12

### UNIT 5

Working mechanism and uske neeche ka nahi aayega mostly aayega so thoda kam kam hi ek read dedo bas

Baaki ka do read

MARKS-5