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Subject: Design and Analysis of Algorithms

Sr No	Title of Experiments	Page No	Date of Performances	Date of Submiss
1.	Write a program non-recursive and recursive program to calculate Fibonacci numbers and analyze their time and space complexity.	1-8	2/8/23	9/8/
2.	Write a program to implement Huffman Encoding using a greedy strategy.	8-21	3/8/23	10/
3.	Write a program to solve a fractional Knapsack problem using a greedy method.	21-28	9/8/23	16/8/
4.	Write a program to solve a 0-1 Knapsack problem using dynamic programming or branch and bound strategy	28-37	10/8/23	23/8
5.	Design n-Queens matrix having first Queen placed. Use backtracking to place remaining Queens to generate the final n-queen's matrix.	37-44	16/8/23	24/8
6.	**Mini Project**	44-49	21/8/23	26

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Subject – Machine Learning

Sr No	Title of Experiments	Page No	Date of Performances	Date of Subn
1.	Implement Gradient Descent Algorithm to find the local minima of a function. For example, find the local minima of the function $y=(x+3)^2$ starting from the point $x=2$.	1-4	23/8/23	31/
2.	Classify the email using the binary classification method. Email Spam detection has two states: a) Normal State – Not Spam, b) Abnormal State – Spam. Use K-Nearest Neighbors and Support Vector Machine for classification. Analyze their performance.	5-10	24/8/23	13/
3.	Implement K-Nearest Neighbors algorithm on diabetes.csv dataset. Compute confusion matrix, accuracy, error rate, precision and recall on the given dataset.	11-17	31/8/23	15/
4.	Implement K-Means clustering/ hierarchical clustering on sales_data_sample.csv dataset .	18-29	13/9/23	20/
5.	Predict the price of the Uber ride from a given pickup point to the agreed drop-off location.	30-39	24/9/23	21/9
6.	**Mini-Project**	40-45	2/8/23	26/

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Subject: Block Chain Technology

Sr No	Title of Experiments	Page No	Date of Performances	Date of Submiss
1.	Installation of MetaMask and study spending Ether per transaction.	1-4	27/9/23	4/10/
2.	Create your own wallet using Metamask for crypto transactions.	5-9	5/10/23	11/10/2
3.	Write a smart contract on a test network, for Bank account of a customer for following operations: • Deposit money • Withdraw Money • Show balance	10-13	12/10/23	18/10/
4.	Write a survey report on types of Blockchains and its real time use cases	14-19	19/10/23	25/10/
5.	Write a program in solidity to create Student data. Use the following constructs: • Structures • Arrays • Fallback Deploy this as smart contract on Ethereum and Observe the transaction fee and Gas values	20-23	25/10/23	26/10/
6.	**Mini Project**	24-27	2/8/23	26/10/

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