

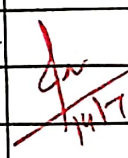
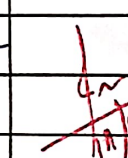
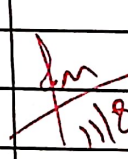
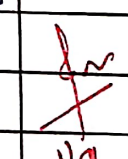
PIMPRI CHINCHWAD EDUCATION TRUST'S  
**PIMPRI CHINCHWAD COLLEGE OF ENGINEERING**  
 Sector No. 26, Pradhikaran, Nigdi, Pune - 411044

Department Of Information Technology

Year and Course TY B.Tech

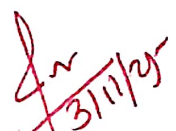
PRN No.: 123B1F028

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| Sr. No. | Title   | Page No. | Date      | Signature   | Remarks |
|---------|---|----------|-----------|---|---------|
| 1.      | Implement Merge sort to efficiently organize large data set orders based on timestamp (using divide and conquer.)   | -        | 7/7/2025  |    | (C)     |
| 2.      | Implement quick sort to enhance personalized movie ranking and improve responsiveness. (divide and conquer)   | -        | 21/7/2025 |    | (C)     |
| 3.      | Emergency Relief Supply Optimization-Implement the fractional knapsack algorithm to maximize utility value within given weight constraint (Greedy Algorithm.) | -        | 4/8/2025  |  | (C)     |
| 4.      | SMART Traffic Management Implement Dijkstra's algorithm to determine the optimal ambulance route under dynamic traffic conditions (Greedy Algo)               | -        | 15/8/2025 |  | (C)     |

This is certify that Shri. Pranav Ravindra Harad has carried out the above mentioned DAA Lab Practicals / Term Work in the IT Department of Pimpri Chinchwad College of Engineering, Pune-44.

Date : 03/11/2025

  
 Subject Incharge  
 Pimpri Chinchwad College of Engineering, Pune - 44


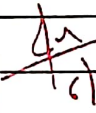
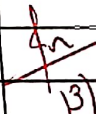
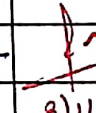
**H.O.D. Information Technology**  
 Pimpri-Chinchwad College of Engineering  
 Sect. 26, Pradhikaran, Nigdi, Pune-411044  
 Head of Department

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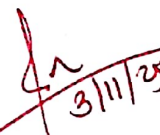
Year and Course TY B.Tech PRN No.: 123B1Fo28

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|---------|---|----------|-----------|--|---------|
| 5.      | Optimal Delivery Routing<br>Implement DP to identify cost<br>effective delivery paths (<br>Dynamic programming)                                     | -        | 28/8/2025 | <br>6/10      | (C)     |
| 6.      | Disaster Relief Resource Allocation - Use 0/1 Knapsack approach to optimize essential supply allocation (Dynamic programming)                       | -        | 31/9/2025 | <br>1/10      | (C)     |
| 7.      | University Exam timetable<br>scheduling - Implement Graph<br>Colouring to generate conflict<br>free and efficient timetables.<br>(Greedy Algorithm) | -        | 15/9/2025 | <br>13/10   | (C)     |
| 8.      | Delivery Route optimization -<br>Apply branch and bound algo.<br>to determine the least cost<br>delivery route across cities.<br>(Branch and Bound) | -        | 6/10/2025 | <br>3/11/25 | (C)     |

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