

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

Department Of Information Technology

Year and Course T.Y. BTech PRN No.: 123B1FO06

## INDEX

Sr. No.	Title	Page No.	Date	Signature	Remarks
1.	Implement merge sort to efficiently organize large scale orders based on timestamp (Divide and Conquer)	-	11/7/25	<del>Dr. S/O</del>	①
2.	Implement Quick sort to enhance personalized movie ranking and improve responsiveness (Divide and Conquer).	-	25/7/25	<del>Dr. S/O</del>	②
3.	Emergency Relief supply optimization. Implement the fractional knapsack algorithm to maximize utility value within given weight constraint (Greedy Approach)	-	8/8/25	<del>Dr. S/O</del>	③

This is certify that Shri. Shreedhar Bargaje has carried out the  
above mentioned Design and Analysis of Algorithm Lab Practicals / Term Work  
in the IT Department of Pimpri Chinchwad College of Engineering, Pune-44.

Date : 5/11/25

**H.O.D. Information Technology**  
**Pimpri-Chinchwad College of Engineering**  
**Subject Incharge** **Section Head / Department Head** **Pune-411044**  
**Pimpri Chinchwad College of Engineering, Pune - 44**

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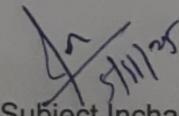
Year and Course T.Y.B.Tech PRN No.: 123B1F006

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4.	Smart Traffic Management - Implement Dijkstral algorithm to determine the optimal ambulance route under dynamic traffic condition (Greedy Approach)	-	22/8/25	Dr. 12/8/25	①
5.	Optimal Delivery Routing . Implement DP to identify cost effective delivery path . (Dynamic Programming)	-	12/9/25	Dr. 12/9/25	①
6.	Disaster Resource Allocation . Use 0/1 knapsack approach to optimize essential supply allocation . (Dynamic Programming)	-	19/9/25	Dr. 19/9/25	①

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7.	University Exam Timetable Scheduling - Implement Graph Colouring Technique to generate conflict free and efficient timetables. (Branch and Bound)	-	31/10/25	<del>Dr. S. N.</del> 31/10	(C)
8.	Delivery Route Optimization Apply the branch and bound algorithm to determine the least cost delivery route across cities (Branch and Bound)	-	31/10/25	<del>Dr. S. N.</del>	(C)

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~~Dr. S. H. R.~~  
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College of Engineering, Pune - 44