

Zagdu Singh Charitable Trust's (Regd.) THAKUR COLLEGE OF ENGINEERING & TECHNOLOGY

Autonomous College Affiliated to University of Mumbai Approved by All India Council for Technical Education(AICTE) and Government of Maharashtra(GoM)

Conferred Autonomous Status by University Grants Commission (UGC) for 10 years w.e.f. A.Y 2019-20 Amongst Top 200 Colleges in the Country, Ranked 193^d in NIRF India Ranking 2019 in Engineering College category

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Institute Accredited by National Assessment and Accreditation Council (NAAC), Bangalore

In semester Assessment ST- (Semester-IV) Design and Analysis of Algorithms

Branch: AIML Date: 18/04/2022

Div.: A Timing: 2.30 pm to 3:30 pm Duration: I hour Maximum Marks: 20

Instructions –

1. All questions are compulsory

- 2. Assume suitable data wherever necessary and state the assumptions made.
- 3. Diagrams / sketches should be given wherever necessary.
- 4. Use of logarithmic table, drawing instruments and non-programmable calculators is permitted.
- 5. Figures to the right indicate full marks.
- 6. Scan the answer sheet in sequence and upload the Pdf. Pdf should be named as ST_AIML_ Roll No_Subject abbreviation_Student Name

Q.1) Objective Questions (10M)

Solve any 10 questions out of 12. (Each question carries 1Mark)

https://forms.gle/cNEbQZgQyyc2SR6M9

Q2 a) Write the pseudocode for Naïve String-Matching algorithm. Also state its worst- and best-case complexity

[5 marks]

OR

Q2 b) What is branch and bound strategy? Explain different branch and bound methods.

[5 marks]

Q3 a) Explain Rabin Karp Algorithm

[5 marks]

OR

Q3 b) Describe the backtracking solution to solve 4-Queen problem.

[5 marks]