

MOODLAKATTE INSTITUTE OF TECHNOLOGY TRAINING AND PLACEMENT CELL
TRAINING AND PLACEMENT CELL

TOPIC FACE ACADEMY APTITUDE TRAINING
Organized On Oct 5 th -Oct 13 th -2018
Resource Person NEERAJ TIWARY
Contact Details
Participants Branch/ Section:Final Year BE –(CSE/ECE/EEE) & MBA Students-94

Preamble

This report provides an overview of the aptitude training program designed and conducted for Bachelor of Engineering (BE) students. The objective of this training program is to equip BE students with essential skills and competencies that will enhance their problem-solving abilities and prepare them for success in their academic and professional pursuits.

BRIEF PROFILE OF TRAINER

NEERAJ TIWARY

Training Objectives:

The primary objectives of our aptitude training program for BE students are as follows:

- a. **Enhance Problem-Solving Skills:** To improve students' ability to analyze complex problems, identify issues, and develop effective solutions.
- b. **Foster Critical Thinking:** To promote critical thinking skills, enabling students to make informed decisions and think critically about engineering problems.
- c. **Strengthen Quantitative Proficiency:** To enhance mathematical and quantitative skills that are integral to engineering tasks and coursework.
- d. **Improve Logical and Analytical Reasoning:** To develop logical and analytical reasoning abilities, which are essential for problem-solving and engineering design.
- e. **Prepare for Competitive Exams:** To provide students with the necessary aptitude skills to excel in various competitive exams and entrance tests for higher education and job placements.

Importance of this subject along with Real Time Applications :

1. Placement Exams
2. Competitive Exams like GRE, GATE, CAT etc.
3. Problem solving and creative thinking during project work
4. Analyzing, adapting nature for doing innovations
5. Building logic while writing computer programs
6. Helps in logical and analytical thinking. (E.g. to write computer programs)
7. Improves intelligence i.e. IQ, EQ and SQ
8. Improves Memory, Concentration and Calculations.
9. Improves decision making power. You can take better and logical decision on time.
10. It can develop your common sense and presence of mind.

Training Details:

The aptitude training program for BE students is structured to cover the following areas:

- a. **Mathematics:** Focuses on fundamental mathematical concepts and problem-solving techniques.
- b. **Logical Reasoning:** Develops logical reasoning abilities through puzzles, patterns, and deductive reasoning exercises.

- c. Data Interpretation: Enhances data analysis skills, including interpreting charts, graphs, and statistical data.
- d. Verbal and Non-Verbal Reasoning: Strengthens communication and reasoning skills, including reading comprehension and pattern recognition.
- e. Mock Tests and Practice: Provides students with ample opportunities to practice and improve their aptitude skills through mock tests and exercises.

Outcomes and Benefits:

1. Have strong thinking capability
2. Have problem solving attitude
3. Be Efficiently participating in Campus placement drives
4. Be capable of Scoring high in competitive exams
5. Be confident to take GRE, GATE & other competitive examinations

ORGANIZING COMMITTEE

Prof.Dhanya Shenoy-Dean TPIR

Prof.Prashanth Acharya -Placement Co-ordinator

Prof.Amruthmala-Placement Co-ordinator

Detailed Syllabus :

1. Number System :

Simplification, Speed Math, Squaring and Cubing Techniques, Multiplication Tricks, Divisibility Rules, HCF of numbers, LCM of numbers, applications of HCF / LCM of numbers, Properties of HCF / LCM, Problems on HCF / LCM, Divisibility Rules, Divisibility by Numbers of the form $[10n-1]$ or $[10n+1]$, Factors / Divisors of a Given Composite Number, Number of Divisors, Number of Even & Odd Divisors, Sum of Divisors, Product of Divisors, Number of ways of expressing a given number as a product of two factors, Number of ways of expressing a given number as a product of two Co-Primes, Number of sets of factors which are Co-Prime to each other, Problems solved on Easy, Medium and Difficult Questions.

2.Blood Relation :

Relations defined, Generation Verticals, Family Tree, Single Person Blood Relations, Mixed/Chain Blood Relations, Symbol based Blood Relation Questions, Important Words.

3.Percentages :

Concept Explanation, Quick Calculation of Percentages, Conversion of Fraction to Percentage Table, Successive Percentage, Concept of 'By' & 'To', Percentage Change, Percentage Point Change, Product Constancy, Increased Value & Increase in Value, Percentage Changes in Numerator & Denominator, Successive Percentage, Problems solved on Easy, Medium and Difficult Questions

5.Ratio and Proportions:

Concept Explanation, Duplicate Ratio, Triplicate Ratio, Direct Proportion, Indirect Proportion, Double rule of three or compound proportion, Ratio in investment or partnership, Problems solved on Easy, Medium and Difficult Questions.

6.Number Series :

What are series, Types of Series: Number Series - Missing numbers, incomplete series - odd-even series, primes, Fibonacci series, arithmetic progression, geometric progression, harmonic progression, squares and cubes and operations on them, operations on digits, exponential series, increasing multiplication, hybrid series

7. Alphabetical Series

Missing alphabets, incomplete letter series - series of words, series of letters, arrangement of words/letters, letters marked with corresponding numbers sequence, positions of letters, ranking of the word in dictionary; Mixed Series - Missing numbers and words/letters, complete the series.

8. Profit and Loss :

Concept Explanation, Profit, Loss, Cost Price, Selling Price, Marked Price, Formula, Examples, Tricks, Problems solved on Easy, Medium and Difficult Questions.

9.Direction Sense

Four Main Directions, Four Cardinal Directions, Distance and displacement, Starting and ending points, Referential directions, Directions of shadows, Actual and conditional directions.

10.Average, Mixtures and Alligation

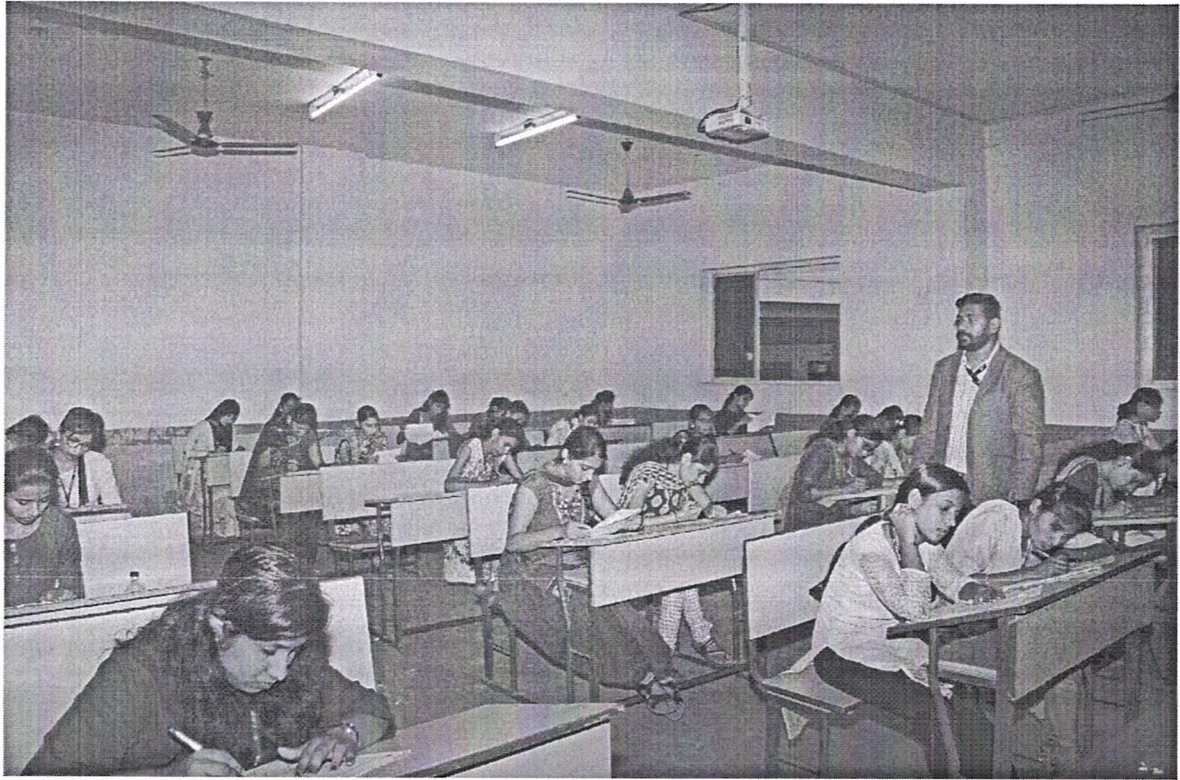
Concept Explanation, Average Formula to calculate the Mean, to determine the Median, to determine the Mode, Average formula for An AP Series, Mixtures & Alligations, Rule of weighted averages, Rule of alligation, Alligation cross, Alligation line, Successive replacement, Problems solved on Easy, Medium and Difficult Questions

11.Clocks :

Angles between the hands, Minute and hour spaces, Time based on coincidence and supplementary angles, Number of times an angle is formed, Duration of rings, Gain or loss of time, Actual time v/s given time, Angle covered for given condition.

12.Calendars :

Leap and non-leap years, Odd/Extra day concept, Odd days table, counting of odd days, Centennial year and non-centennial years, Date to day calculations, Last day of a year, Forward and backward counting of days, Repetition of a calendar year or month.



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