



A T M E
College of Engineering



AVR Course Details

Aptitude, Verbal and Logical Reasoning

COURSE STRUCTURE

a. Objectives:

1. To enhance the analytical skills in students and pace of problem solving.
2. To train and impart knowledge as per industry requirements
3. To improve assertive, logical thinking skills in students.

Description

Aptitude is essential to assess analytical and problem solving skills in a student. Verbal and logical reasoning helps to assess ability to reason using concepts wrapped in words. It verifies level of understanding and comprehension, as well as your dexterity when it comes to filtering out key information from a bulk of text.

b. Course Details

SL.No.	Course	Course Code	Semester	Total Hours/Semester
1	Aptitude, Verbal and Logical Reasoning-I	ATME_AVR_01	IV	18
2	Aptitude, Verbal and Logical Reasoning-II	ATME_AVR_02	V	18
3	Aptitude, Verbal and Logical Reasoning-III	ATME_AVR_03	VI	18
4	Aptitude, Verbal and Logical Reasoning-IV	ATME_AVR_04	VII	18



COURSE MODULE

Semester: IV

Academic Year: 2021-2022					
Course Code	Course Title	Prerequisite	Contact Hours/Week		Number of Hours/Semester
			L	A	
ATME_AVR_01	Aptitude, Verbal and Logical Reasoning-I	<ul style="list-style-type: none"> Basic Mathematics English Fundamentals 	1		L-Lecture A-Assessment 18 Hours/Semester
Objectives	<ol style="list-style-type: none"> To analyze numbers systems and numbers series To analyze different methods of HCF and LCM To analyze Pattern from figures, sequence coding and decoding To understand seating arrangements, comprehension. 				
Topics to be Covered					
Module-1					
<p>Speed Math [Operation on Numbers]: Whole numbers, integers, rational & irrational numbers, Real Numbers, Prime numbers, Composite Numbers Addition, Subtraction, Multiplication Rules for Even and Odd Numbers, Divisibility Rules [1 Hour]</p> <p>Assessment: [1 Hour]</p> <p>HCF and LCM: Methods of finding HCF (Factorization Method, Division method) and LCM [1 Hour]</p> <p>Assessment: [1 Hour]</p>					
Module-2					
<p>Analytical Puzzle: Puzzles, Analyze the condition and need to form the equations which on solving unknown Numbers [1 Hour]</p> <p>Assessment: [1 Hour]</p> <p>Coding and Decoding: Sequence of Letters, numbers [1 Hour]</p> <p>Assessment: [1 Hour]</p>					
Module-3					
<p>Simple Interest and Compound Interest: Principal or Sum, Simple Interest, Compound Interest problems [1 Hour]</p> <p>Assessment: [1 Hour]</p> <p>Percentages: Concept of Percentage, Percentage increase/decrease, Results on Population, Effect of percentage change on any quantity [1 Hour]</p> <p>Assessment: [1 Hour]</p>					
Module-4					
<p>Sequence and Pattern Completion: Select a figure from different alternatives [1 Hour]</p> <p>Assessment: [1 Hour]</p> <p>Seating arrangements: Enumerate different scenario of seating arrangements and its interpretation [1 Hour]</p> <p>Assessment: [1 Hour]</p>					

Module-5**Reading Comprehension:** Enumerate different passage examples [1 Hour]**Assessment:** [1 Hour]**Final Exam: 1 Hour****List of Text Books****TEXT BOOKS:**

1. Quantitative Aptitude for Competitive Examinations by R S Agarwal
2. Wileys Exam Xpert General Aptitude for Campus Placements by Uma Maheshwari
3. Solved Placement Papers Campus Recruitment (Version Lite 2019) by Praxis groups
4. Modern Approach to Verbal and Non verbal reasoning, by R S Agarwal
5. Aptipedia Aptitude Encyclopedia by FACE

List of URLs, Text Books, Notes, Multimedia Content, etc

1. Wonder Power Made Easy, Complete Handbook for super Vocabulary by Norman Lewis
2. Fast track objective arithmetic by Rajesh Verma
3. Career Prime study materials
4. <https://examsdaily.in/quantitative-aptitude-study-material>
5. <https://cracku.in/blog/rrb-ntpc-reasoning-questions-pdf/>
6. <http://placement.freshersworld.com/placement-papers>

Course Outcomes

At the end of the course the student will be able to:

1. Analyse and solve numbers systems, numbers series and sequence
2. Analyse and solve SI & CI, analytical puzzle problems.
3. Understand and Enumerate passage examples.

Assessment

Each Module will comprise an Assessment which can be conducted through

SRS/ myQuiz/ A-IMS/Written Test for **20Marks****Each Topic: 10 Questions [Complexity ratio of questions Easy: Moderate: Complex:: 3:3:4]****Each student attendance and Progress Report to be maintained by the Faculty Trainer**

COURSE MODULE

Semester: V

Academic Year: 2021-2022					
Course Code	Course Title	Prerequisite	Contact Hours/Week		Number of Training and Assessment Hours/Semester
			L	A	
ATME_AVR_02	Aptitude, Verbal and Logical Reasoning-II	1.Basic Mathematics 2.English Fundamentals 3.Aptitude, Verbal and Logical Reasoning-I	1		18 Hours/Semester
Objectives	1. To understand the concept of ordinary versus leap year. 2. To understand Speed, time and distance calculations. 3. To understand the concept of probability and clocks				
Topics to be Covered					
<p>Orientation Importance of AVR, AVR component in campus recruitment, Course awareness. [2 Hours]</p> <p>Module-1</p> <p>Calendars: Ordinary year, leap year, counting of odd days [1 Hour] Assessment [1 Hour]</p> <p>Time and Distance: Speed, time and distance. Conversions from Km/hr to m/sec and vice versa [1 Hour] Assessment [1 Hour]</p> <p>Module-2</p> <p>Data Interpretation: Illustrate examples on study of tables, graph. [1 Hour] Assessment [1 Hour]</p> <p>Permutation and Combination: Illustrate Permutation and Combination examples [1 Hour] Assessment [1 Hour]</p> <p>Module-3</p> <p>Probability: Sample space, event space, combination of events, properties of probability. [1 Hour] Assessment [1 Hour]</p> <p>Clocks: Minute spaces, Hour hand and minute hand [1 Hour] Assessment [1 Hour]</p> <p>Note:</p> <ul style="list-style-type: none"> AVR Activity: Mock Aptitude Written Recruitment Test [1 Hour] Additional Tutorial [1 Hour] Final AVR Exam [1 /2 Hour] 					
List of Text Books					
<p>TEXT BOOKS:</p> <ol style="list-style-type: none"> Quantitative Aptitude for Competitive Examinations by R S Agarwal Wileys Exam Xpert General Aptitude for Campus Placements by Uma Maheshwari Solved Placement Papers Campus Recruitment (Version Lite 2019) by Praxis groups 					

4. Modern Approach to Verbal and Non verbal reasoning, by R S Agarwal
5. Aptipedia Aptitude Encyclopedia by FACE

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5. <https://cracku.in/blog/rrb-ntpc-reasoning-questions-pdf/>
6. <http://placement.freshersworld.com/placement-papers>

Course Outcomes

At the end of the course the student will be able to:

1. Analyse and solve different data analysis problems for time and distance.
2. Interpret data analysis for a case study and illustrate suitable probability and outcome for a given scenario/problem.

Assessment

Each Module will comprise an Assessment which can be conducted through

SRS/ myQuiz/ Written Test for **20Marks**

Each Topic: 10 Questions [Complexity ratio of questions Easy: Moderate: Complex:: 3:3:4]

Each student attendance and Progress Report to be maintained by the Faculty Trainer

COURSE MODULE

Semester: VI

Academic Year: 2021-2022					
Course Code	Course Title	Prerequisite	Contact Hours/Week		Number of Hours/Semester
			L	A	
ATME_AVR_03	Aptitude, Verbal and Logical Reasoning-III	1.Basic Mathematics 2.English Fundamentals 3.Aptitude, Verbal and Logical Reasoning-I, II	1		L-Lecture A-Assessment 18 Hours/Semester
Objectives	1. To analyze the problems of Trains, boats and streams 2. To analyze problems on ages 3. To analyze the concept of chain rule 4. To interpret data sufficiency, synonyms & antonyms, active and passive voice				
Topics to be Covered					
Module-1 Problems on Trains: Enumerate various examples [1 Hour] Assessment: [1 Hour] Boats and streams: Illustrate various examples [1 Hour] Assessment: [1 Hour]					
Module-2 Data sufficiency: Illustrate various examples [1 Hour] Assessment: [1 Hour] Chain Rule, Areas and Volumes: Direct and indirect proportion. Examples on different areas and Volumes. [1 Hour] Assessment: [1 Hour]					
Module-3 Problems on Ages: Examples on Ages [1 Hour] Assessment: [1 Hour] Visual Reasoning: Illustrate various examples [1 Hour] Assessment: [1 Hour]					
Module-4 Synonyms and Antonyms : Illustrate various examples [1 Hour] Assessment: [1 Hour] Active and Passive voice: Illustrate various examples [1 Hour] Assessment: [1 Hour]					
Tutorial: [1 Hour] Final Exam: [1 Hour]					
List of Text Books					
TEXT BOOKS: 1. Quantitative Aptitude for Competitive Examinations by R S Agarwal 2. Wileys Exam Xpert General Aptitude for Campus Placements by Uma Maheshwari 3. Solved Placement Papers Campus Recruitment (Version Lite 2019) by Praxis groups					

4. Modern Approach to Verbal and Non verbal reasoning, by R S Agarwal
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6. <http://placement.freshersworld.com/placement-papers>

Course Outcomes

At the end of the course the student will be able to:

1. Analyse and solve different data analysis problems on ages, trains.
2. Interpret active and passive voices, Synonyms and antonyms.
3. Analyse and solve different mathematical and visual reasoning examples.

Assessment

Each Module will comprise an Assessment which can be conducted through

SRS/ myQuiz/ Written Test for **20Marks**

Each Topic: 10 Questions [Complexity ratio of questions Easy: Moderate: Complex:: 3:3:4]

Each student attendance and Progress Report to be maintained by the Faculty Trainer