

PEA305:ANALYTICAL SKILLS-I

L:2 T:1 P:0 Credits:3

Course Outcomes: Through this course students should be able to

- CO1 :: demonstrate procedural fluency with number system and mathematical operations to solve the stated problems.
- CO2 :: select an appropriate approach to solve problems related to percentage, profit and loss.
- CO3 :: observe the data given and interpret given number and alphanumeric series
- CO4 :: apply the analytical concepts learnt to solve the questions of ratio and proportion
- CO5 :: use the concepts of permutation, combination and probability to handle various problems.
- CO6 :: analyze the reasoning aptitude problems such as blood relation and direction sense to solve related problems.

Unit I

Number system : HCF & LCM, divisibility rules, classification of numbers, factors, factorials, unit digit calculation, remainder properties

Simplification and approximation : BODMAS rule, calculation and approximation based on percentage, problem based on digit sum

Average : basic average calculations, average increase and decrease, weighted average

Unit II

Percentage : basic percentage calculations, percentage to fraction, percentage comparison, percentage increase and decrease, population change in percentage

Profit loss discount : basic concepts of cost price selling price and marked price, calculations of profit and loss percentage, types of discount and discount percentages, comparison of profit or loss with discount percentage

Simple and compound interest : basic concepts of interest calculations, comparison of simple and compound interest

Unit III

Logical reasoning : number series with introduction of AP and GP, alphabet series, alphabet test, coding and decoding, language coding

Unit IV

Ratio and proportions : basic concepts of ratio and proportions and ages, problems based on ratio and proportions and ages, problems based on partnerships and profit sharing

Alligation and mixtures : conceptual knowledge of alligation and mixtures, problems based on alligation and mixtures

Unit V

Permutation : basic principle of counting, numerical permutation(formation of numbers and sum of numbers), alpha permutation(rearrangement of words and rank of a word), linear and circular permutation, logical permutation

Combination : basic formulas of combination, formation of committee, combination of identical objects

Probability : concept of probability, classification of events, conditional probability, problems based on coins dices and cards

Unit VI

Analytical reasoning : blood relations, direction sense test

Text Books:

1. QUANTITATIVE APTITUDE FOR COMPETITIVE EXAMINATIONS by DR.R.S. AGGARWAL, S Chand Publishing
2. A MODERN APPROACH TO VERBAL AND NON-VERBAL REASONING by DR. R.S. AGGARWAL, S Chand Publishing

References:

1. MAGICAL BOOK ON QUICKER MATHS by M.TYRA, BANKING SERVICE CHRONICLE
2. MAGICAL BOOK SERIES ANALYTICAL REASONING by M.K. PANDEY, BANKING SERVICE CHRONICLE

