

PEA307:ADVANCED ANALYTICAL SKILLS-I

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

Course Outcomes: Through this course students should be able to

CO1 :: Reproduce the concepts learned to solve various questions of Profit Loss, and interest based real life problems

CO2 :: Observe the data given and interpret it from the given coding decoding problems

CO3 :: Apply various decision making techniques to solve aptitude problems in given time span

CO4 :: Demonstrate procedural fluency with number system and mathematical operations to solve the stated problems.

CO5 :: Solve the Logical Reasoning Aptitude problems related to directions, blood relations

CO6 :: Employ the concepts of permutation, combination and probability learnt, to real life situations

Unit I

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

A.P and G.P : basic formulas on arithmetic and geometric progressions, calculation of general terms, sum of n terms calculation

Average : basic average calculations, average increase and decrease

Unit II

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

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, EMI calculations

Unit III

Logical reasoning : Decision making

Analytical reasoning : Coding Decoding, Number series, Alphabet series, language coding

Unit IV

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

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

Logical reasoning 1 : Visual Reasoning

Analytical reasoning 1 : Direction sense, Blood Relation

Text Books:

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

References:

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