

# Basic Mathematics

## Unit I

Basic Operations: Addition, Addition and subtraction in a single row, Multiplication, multiply by different numbers, Divisibility, Divisibility by different number, Squaring, Cube, HCF & LCM, HCF and LCM of decimal numbers and fractions, Fractions, Decimal Fractions,

## Unit II

Elementary Algebra, Surds, Number System, Binary System, Permutation & Combination, Probability, Ratio and Proportion, Partnership, Percentage, Calculation oriented basic Percentage Problems, Average, and Problem Based on Ages, Profit and Loss, Simple Interest, Compound Interest, Allegation

## Unit III

Time and Work, Work and Wages, Pipes and Cisterns, Time and Distance, Problems on Average/Relative speeds, Boats, Trains, Trains, Streams, Series, Data Sufficiency, Data Analysis, Problems on Bar/Line Graphs, Pie Charts, Tables.

## Unit IV

Reasoning Classification: Number, Letter, GK and Meaningful Words, Analogy, Coding Decoding: Coding by Analogy, Coding and decoding by letter shifting & Coding Letters of a Word, Puzzle: Number based puzzles; Puzzle Quant based questions like on age, speed and distance or Seating arrangement questions.

## Unit V

Blood Relations: Family Tree or General Blood Relation Problems, Missing Number: missing number from the given matrix or diagram, Series: Number & Alphabet series, Non Verbal Reasoning: Complete the pattern, Assemble Image, Mirror Image, Hidden Image, Counting Figures.