

## **Basic Mathematics for Competitive Exam.**

### **Course Contents:**

#### **Section I:**

- 1) Numbers
- 2) HCF & LCM
- 3) Decimal Fractions
- 4) Simplification
- 5) Square and Cube roots
- 6) Average
- 7) Problems on numbers
- 8) Problems on Ages
- 9) Surds and Indices
- 10) Percentage
- 11) Profit and Loss
- 12) Ratio and Proportion
- 13) Partnership
- 14) Chain rule
- 15) Time and work
- 16) Pipes and cisterns
- 17) Time and distance
- 18) Problems on trains
- 19) Boats and streams
- 20) Simple and Compound interest
- 21) Miscellaneous

#### **Section II:**

### **Data Interpretation**

# Curriculum:

The course shall be structured to meet the demands of preliminary stage (Mathematics) of any government examination. It shall be a 1 year course comprising of the following cycles:

## Cycle A:

- 1) Numbers
- 2) HCF & LCM
- 3) Decimal Fractions
- 4) Simplification
- 5) Square and Cube roots
- 6) Average
- 7) Problems on numbers
- 8) Problems on Ages
- 9) Surds and Indices
- 10) Percentage
- 11) Profit and Loss

## Cycle B:

- 12) Ratio and Proportion
- 13) Partnership
- 14) Chain rule
- 15) Time and work
- 16) Pipes and cisterns
- 17) Time and distance
- 18) Problems on trains
- 19) Boats and streams

20)	Simple and Compound interest
21)	Miscellaneous

## Cycle C:

# Data Interpretation/Reasoning

Note:

- 1) Every cycle is of four months duration.
- 2) At the end of every cycle online mock tests will be taken as per the examination pattern.

## **Course Objectives:**

The objective of the course is to introduce the students:

- 1) The basic mathematics to the students. It assumes that the students have minimal knowledge to the subject.
- 2) To help them acquire skills in solving quantitative aptitude by simple methods ( mainly based on demonstration ).
- 3) During class time students are expected to engage in pair work.
- 4) The main focus of the students will be on quantitative aptitude in short span of time.

## **Course Outcomes:**

- 1) Provide a platform to the students for building the fundamentals of basic mathematics for competitive examinations preparation strategy.
- 2) Establish a framework to help students acquire knowledge and expertise necessary to secure employment opportunities in the Government sector.