

General Mathematics

PART-1

Unit I - Arithmetic

1 Variation -

- Introduction
- Types of variation
- Time, work and speed

2 Sequences -

- Introduction
- Patterns of numbers
- Progressions
- Arithmetic Progressions

Unit II - Commercial Mathematics

3 Modern marketing techniques -

- Discount
- Rebate
- Commission
- Brokerage
- Instalments

4 Taxes and Investments -

- Introduction
- Sales tax
- VAT
- Income Tax
- Investments
 - Bank investment
 - Post investment
 - Life insurance
 - Shares and Mutual funds

Unit III – Algebra

5 Linear equations in two variables

- Introduction
- Solution of equations in two variables
- Methods of solving linear equations in two variables

6 Quadratic equations -

- Introduction
- Solution of quadratic equations
- Methods of solving quadratic equations

PART-2

Unit IV - Geometry

1. Similarity

- Introduction
- Test of similarity
- Properties of similar triangles
- Basic proportionality theorem
- Similarity in right angled triangle.

Pythagoras theorem statement

- Pythagorean Triplets
- Application of Pythagoras theorem
- Appolloneous theorem

2. Circle -

- Introduction
- Terms related to circle
- Properties of chords
- Properties of tangents
- Arc of circle

3. Trigonometry

- Basic concepts in Trigonometry
- Problems related to height and distance

Unit V - Constructions

4. Geometric Constructions -

- Construction of incircle of triangle
- Construction of circumcircle of triangle
- Tangents to the circle
- Construction related to design

Unit VI- Mensuration

5. Surface area and volume -

- Parallelopiped
- Rectangular parallelopiped
- Cube
- Cylinder

Cone

- Sphere and hemisphere

Unit - Statistics

6. Statistics

- Representation of data
- Histogram
- Frequency polygon
- Pie Diagram
- Measures of central tendency for

grouped data
- Probability

