MTRP Syllabus for Class IX

• Geometry:

- 1) Parallel lines.
- 2) Triangles- Basic properties of triangles, congruency, similarity, mid-point theorems, Pythagoras Theorem, etc. Proofs and applications.
- 3) Basic constructions.
- 4) Properties of rectilinear figures- Square, rectangle, parallelogram, rhombus, trapezium, etc.
- 5) Basic properties of circles.
- 6) Mensuration: Area and volume of basic shapes.

• Arithmetic:

- 1) Number system.
- 2) Basic notion of divisibility.
- 3) Ratio and proportion.

Algebra:

- 1) Expansion and simplifications- Eg: (a+b)²,(a+b)³,(a+b+c)²,etc.
- 2) Factorisation
- 3) Solving linear and simultaneous equations.
- 4) Indices.
- 5) Inequalities- Basic results like square of a real number is non-negative, etc. and the AM-GM-HM inequality.
- Logical reasoning: self explanatory.