ICSE Class 8 Maths Syllabus

The Syllabus of ICSE Class 8 Mathematics is given below:

Number System

1) Rational Numbers

- Revision of "What is a rational number?" with examples and only discussion of properties.
- Between any two rational numbers there lies another rational number (Problems related to inserting 1,2,3, ….. n rational numbers between two rational numbers).
- Word problems based on real life situations using rational numbers.

2) Exponents Powers

- Laws of exponents with integral powers
- Square and Square roots using division method for numbers containing
    - no more than total 4 digits
    - no more than 2 decimal places
- Cubes and cubes roots (only factor method for numbers containing at most 3 digits)

3) Sets

- Union and intersection of sets
- Disjoint-set
- The complement of a set

Ratio and Proportion

- Compound Interest (compounded yearly up to 3 years)
- Problems on tax (rebate sum included)
- Direct and inverse variations – Simple and direct word problems
- Time and work problems – Simple and direct word problems

Algebra

- Algebraic Expressions
- Multiplication and division of algebraic expression (Coefficient should be integers)
- Inequalities and solution of simple inequalities in one variable.
- Factorisation (simple cases only) as examples the following types a (x + y), ax (c + d)
- Solving linear equations in one variable in contextual problems involving multiplication and division (word problems) (avoid complex coefficient in the equations)

Geometry

Understanding shapes:

i. Properties of quadrilaterals – Angle Sum property

ii. Properties of a parallelogram (By verification)

- Opposite sides of a parallelogram are equal,
- Opposite angles of a parallelogram are equal,
- Diagonals of a parallelogram bisect each other.
- Diagonals of a rectangle are equal and bisect each other.
- Diagonals of a rhombus bisect each other at right angles.
- Diagonals of a square are equal and bisect each other at right angles.

Mensuration

- Surface area of a cube, cuboid, cylinder.
- The idea of Total surface area of cubes and cuboid.
- Concept of volume, measurement of volume using a basic unit, the volume of a cube, cuboid and cylinder
- Volume and capacity (the measurement of capacity)

Data Handling

- Simple Pie charts with reasonable data numbers