

**Common Aptitude Test
Session 2012-13**

Syllabus : Mathematics (Class : 3)

Objectives:-

1. To ensure a complete understanding of the basic concepts of each topic taught in the class.
2. To lead the pupils to arrive at conclusion and generalization through concrete exercises and activities.
3. To improve the power to think and work in an organized way.
4. To develop an attitude of intellectual honesty among the students.

Grade 3 Level Description

The proficiency strands : Understanding, fluency, problem solving and reasoning are an integral part of mathematics content across the three content strands:

- i) Number algebra
- ii) Measurement and geometry
- iii) Statistics.

Content Description

1. Number and place value
 - a) Investigate the conditions required for a number to be odd or even and identify odd and even numbers.
 - b) Recognize, represent and order numbers upto at least 9999
 - Write numbers in words & figures.
 - Put numbers in order.
 - Comparing numbers
 - Recognise the place value and face value of the given digits in numbers upto 4 digits.
 - c) Apply place value to partition, rearrange & regroup number
 - Extend the numeric pattern (Expanded form) and convert in standard form.
 - Formation of the greatest and smallest numbers.
2. **Recognize, describe and represent Roman Numerals.**
 - Rules to write Roman Numerals.
 - Recognise and represent numbers upto 39 using Roman Numerals.
3. **Operations on numbers**
 - a) Recall addition facts for single-digit numbers to develop increasingly efficient mental strategies for computation.
 - Understanding the properties of addition

- Addition of numbers upto 4-digit without and with carryover.
 - Solving simple word problems useful in our day to day life
- b) Represent and solve problems involving multiplication using efficient mental and written strategies and appropriate digital technologies.
- Multiplication – skill builders
(Multiplication of 4 digit Numbers by 1 digit
(Multiplication of 2 and 3 digit Numbers by 1 and 2 digit numbers)
 - Multiply numbers ending in zeroes.
 - Solving simple word problems useful in our day to day life.
- c) Recall subtraction facts for single digit numbers to develop increasingly efficient mental strategies for computation.
- Understanding the properties of subtraction
 - Subtraction of numbers upto 4 digit without and with borrowing.
 - Solving simple word problems useful in our day to day life.
- d) Represent and solve problems involving division.
- Understanding division by repeated subtraction.
 - Simple division

4. Fractions

- Model and represent unit fractions including $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$, $\frac{1}{5}$ and their multiples to complete a whole.

5. Money and financial mathematics

- Recognition of coins, currency notes of different denominations.
- Represent money values in multiple ways and count the change required for simple transactions.
- Money : Count coins and notes
- Money : purchases – Do you have enough money?
- Money : Conversion – Rupees to paise

6. Measurement and Geometry

- Identification of standard and non-standard units.
- Measure, order and compare objects using familiar metric units of length, mass and capacity.
- Addition and subtraction of length, weight and capacity.

b) Geometry

- Understanding different 2-D and 3-D shapes
- Open and closed figures.

7. Measurement of Time

- Investigate the relation between days in weeks , months and year.

- Read and write time
 - O'clock
 - Half Past
- Identify and use a.m. and p.m. to represent time.

8. Patterns and data handling

- Recognise and represent the patterns around us.
- Collection and Representation of the data.