

# **Ramanujan National Maths Challenge**

A National Maths Scholar Search Program



Please Note - All participants will receive a participation certificate, even if not selected in the final. These certificates are highly regarded in India and are awarded by AICTSD at the national level. The certificate holds substantial value and has the potential to significantly boost your academic and professional career.

# Syllabus - Class 6

#### Percentages

- Expressing Fractions As Percentages
- Converting Percentages To Fractions
- Expressing Percentages As Decimals
- Expressing Decimals As Percentages
- Finding Percentage Of A Number
- Money And Metric Measures As Percentages
- Why Do We Use Percentages?

## **Ratio And Proportion**

- Introduction
- Ratio
- Proportion
- Unitary Method

#### **Perimeter And Area**

- Introduction
- Squares And Rectangles
- Area Of A Parallelogram
- Area Of A Triangle
- Circles
- Conversion Of Units
- Applications

#### **Averages**

• Averages

### **Problem on AGEs**

- AGE Calculations
- Problems on conditional AGE calculations
- Present & Past AGE calculations

## **Problem on True Discount**

- Buying & Selling Prices Calculations
- Discounts in transaction calculations
- Profit ratio calculations

## Algebra

- Introduction
- Matchstick Patterns
- The Idea Of A Variable
- More Matchstick Patterns
- More Examples Of Variables
- Use Of Variables In Common Rules
- Expressions With Variables Using Expressions Practically
- What Is An Equation?
- Solution Of An Equation

## **Algebraic Expression**

• Introduction

- How Are Expressions Formed?
- Terms Of An Expression
- Like And Unlike Terms
- Monomials, Binomials, Trinomials And Polynomials
- Addition And Subtraction Of Algebraic Expressions
- Finding The Value Of An Expression
- Using Algebraic Expressions Formulas And Rules