

# **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.

## <u>Syllabus - Class 10</u>

#### HCF & LCM

- Hcf
- Lcm
- Prime Factorisation
- Hcf By Prime Factorisation
- Lcm By Prime Factorisation
- Lcm By Division Method

### **Problem on Simple Interest**

- Calculate Interest
- Calculate Profit / Loss
- Interest Appreciation / Depreciation

### **Problem on Speed & Distance**

- Calculate Speed & Velocity
- Calculate Speed & Distance Proportion

#### **Problem on AGEs**

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

## **Comparing Quantities**

• Introduction

- Equivalent Ratios
- Percentage Another Way Of Comparing Quantities
- Use Of Percentages
- Prices Related To An Item Or Buying And Selling
- Charge Given On Borrowed Money Or Simple Interest

## Time & Work

- Problem on time & work calculation
- Finding the Number Of Days From One Date To Another
- Railway And Air Timings
- Time Intervals

## **Problem on Trains**

- Train Speed Calculations
- Train & Platform Measurements
- Train Arrival & Departure calculations

## **Profit And Loss**

- Finding Selling Price
- Finding Cost Price
- Profit And Loss