

**THE INTERNATIONAL SCHOOL BANGALORE**

**GRADE11 – MATHEMATICS ENTRANCE EXAMINATION DETAILS**

1. **SYLLABUS OUTLINE**

A student applying to Grade 11 is expected to have sufficient knowledge and understanding of the following topics, as per the Grade 10 level curriculum:

**Numbers**

* Types of Numbers
* Sets
* Powers & Roots
* Fractions, Decimals & Percentages
* Indices
* Standard Form
* Estimation
* Ratio & Proportion
* Percentages
* Surds

**Algebra**

* Algebraic Manipulation
* Algebraic Fraction
* Equations
* Inequalities
* Sequences
* Proportion

**Functions**

* Graphs of Functions – Linear, Quadratic and cubic
* Basic Functions
* Finding a quadratic function
* Asymptotes

**Co-ordinate Geometry**

* Gradient of Linear Graphs
* Length and Midpoint
* Equations of Linear Graphs
* Parallel Lines
* Perpendicular Lines

**Geometry**

* Angles
* Bearings
* Similarity
* Symmetry and Congruency
* Circle Theorem

**Mensuration**

* Units of Measure
* Area and Perimeter
* Circles, Arcs and Sectors
* Surface Area and Volume of solids

**Trigonometry**

* Pythagoras' Theorem
* Right Angled Triangles
* Trigonometric Functions
* Non-Right-Angled Triangles
* Applications of Trigonometry

**Transformations**

* Reflection
* Rotation
* Enlargement
* Translation

**Probability**

**Statistics**

* Averages and Range
* Statistical Charts and Diagrams
* Scatter Diagram
* Cumulative Frequency Diagram

1. **QUESTION PAPER PATTERN**
   * **Nature of Questions:** Multiple Choice Questions (MCQs)
   * **Number of Questions:** 25
   * **Duration:** 30 minutes
2. **Links to Past Question Papers**
   * Sample QP with Answer Key

[Grade 11 Entrance Paper- QP.docx](https://nafltrust-my.sharepoint.com/:w:/g/personal/admission_tisb_ac_in/EXWucNR8DilLmp0bAV_2hoABTGBG1JnZGArbdE7oqhK5kQ?e=Thfwj2)

[Grade 11-Maths-Answer Key.pdf](https://nafltrust-my.sharepoint.com/:b:/g/personal/veena_tisb_ac_in/EcDnQH75uRdFn-iIQt1tMZMBsxdzNdx69RgsfhMgVRhfew?e=QGG8w5)