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**THE INTERNATIONAL SCHOOL BANGALORE**
**GRADE 6 – MATHEMATICS ENTRANCE EXAMINATION DETAILS**

1. **SYLLABUS OUTLINE**

A student applying to Grade 6 is expected to have sufficient knowledge and understanding of the following topics, as per a Grade 5 level curriculum:

I – **Numbers and Number Sense**

* Count by thousands, ten thousands, and hundred thousands, starting at any number from 1 to 999,999
* Read and write numbers to at least 1,000,000. Compare and order numbers from 0 to 1,000,000 using the words equal to, greater than, less than, greatest, or least and recording the results of comparisons with the symbols >, =, and < when appropriate.
* Read, write, compare, and order all whole numbers, fractions, mixed numbers and decimals using multiple strategies (e.g. symbols, number line, and place value concepts)
* Identify and use place value positions of whole numbers and decimals to hundredths.
* Determine decimal equivalents or approximations of common fractions (i.e., ¼, ½, ¾, and 1 whole)
* Relate equivalent fractions and decimals with and without models, including locations on a number line.
* Use models and drawings and find common denominators to compare fractions with unlike denominators.
* Round, order, and compare, using symbols, decimals to the tenths, hundredths, and thousandths place.
* Determine the equivalency among decimals, fractions, and percents (e.g., 49/100 = 0.49 = 49%).
* Determine totals, differences, and change due for monetary amounts in practical situations.
* Describe real- world situations using positive and negative numbers.
* Add, subtract, multiply, and divide (with and without remainders) using non- negative rational numbers.
* Add, subtract, multiply, and divide fractions, decimals to hundredths, using concrete models or drawings and strategies based on place value.
* Model addition, subtraction, Multiply and Divide of mixed numbers with and without regrouping and fractions with like and unlike denominators.
* Model and distinguish between factor and multiple and prime and composite numbers.
* Recall from memory multiplying and dividing by 10, 100, and 1,000 etc.
* Select and/or use an appropriate operation(s) to show understanding of addition and subtraction of non-negative decimals and/or fractions.
* Introduction to brackets
* Order of operations (BODMAS)

II – **Data Handling**

* Use a variety of graphical representations including line graphs, bar graph and pictograph to organize and represent data.
* Compare data and interpret quantities represented on tables and graphs, including line graphs, line graphs, Bar graph and pictograph to make predictions, and solve problems based on the information.
* Make predictions and draw conclusions based on data collected from a sample group.

III – **Geometry and Measurements**

* Identify, draw, and label points, lines and angles

(classifications- parallel lines, intersecting lines, and perpendicular lines)

(adjacent, vertical, complementary, and supplementary etc)

* Understanding of perimeter and area of rectangles, squares and triangles.
* Determine equivalent periods of time, including relationships between and among seconds, minutes, hours, days, months, and years.
* Estimate and convert units of measure for weight and volume/capacity within the same measurement system. (metric)
* Select and apply appropriate units for measuring length, mass, volume, and temperature in the metric system.
* Convert units within a given measurement system to include length, weight/mass, and volume.

**IV – Patterns**

* Identify a rule for a pattern involving addition, subtraction, multiplication or division.
* Identify, describe, and represent patterns and relationships in the number system, including triangular numbers and perfect squares.
* Solve problems by finding the next term or missing term in a pattern using real world situations.
* Solve equations with whole numbers using a variety of methods, including inverse operations, mental math, and guess and check.
* Complete number sentences with the appropriate words and symbols including ≥, ≤, ≠

1. **QUESTION PAPER PATTERN**
* **Nature of Questions:** Multiple Choice Questions (MCQs)
* **Number of Questions:** 25
* **Duration:** 40 minutes
1. **Links to Past Question Paper**

[Grade 6 Entrance question paper.pdf](https://nafltrust-my.sharepoint.com/%3Ab%3A/g/personal/veena_tisb_ac_in/EdJVVpSoUgJGkE8_XT_3f7EBa4MxnFL4peHT_I8znropkw?e=TjHJei)

[Grade 6 Entrance Answer Key.pdf](https://nafltrust-my.sharepoint.com/%3Ab%3A/g/personal/veena_tisb_ac_in/EYWkAe2MQVlPvL4fRIiKoOkBW1SCfKOT-s6HLUnjDYCiTg?e=Rr9HgU)