

Nixor O Levels

ADMISSION TEST SYLLABUS

FOR STUDENTS APPLYING FOR ADMISSIONS TO GRADE 7

MATHEMATICS:

- The Number System
 - Place value and rounding decimal numbers (tenth & hundredths)
- Numbers and Sequences
 - Counting and sequences
 - Special numbers
 - Common multiples and factors
- Fractions and Percentages
 - Understanding fractions
 - Percentages
 - Equivalence and comparison
- Addition and Subtraction
 - Adding and subtracting fractions
- Multiplication and Division
 - Multiplication
 - Division
 - Tests of divisibility
- Multiplication and Division
 - Multiplying and dividing fractions
 - Multiplying decimals
 - Dividing decimals
- The Laws of Arithmetic
 - Prime Factorization
 - LCM and HCF of pair of numbers

ENGLISH:

- Comprehension
- Creative Writing
- Vocabulary

CRITICAL REASONING:

The critical reasoning test consists of questions that test your ability to analyze logical arguments, such as number, pattern and symbol sequences, pattern recognitions and formation, true and false statements and other similar logical questions.

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ADMISSION TEST SYLLABUS

FOR STUDENTS APPLYING FOR ADMISSIONS TO GRADE 8

MATHEMATICS:

- Factors and Multiples
 - LCM
 - HCF
 - Prime factorization
 - Square roots & Cube roots
 - Prime numbers
- Integers
 - BODMAS
 - Fractions
 - Basic Ratios
 - Negative numbers
- Estimation and Approximation
 - Rounding off
 - Significant figures
 - Currency conversions
 - Word Problems involving rounding off
- Basic Algebraic Manipulation
 - Simplification, Expansion, Factorization and Substitution
- Forming Algebraic Expressions
 - Word problems
- Linear Equations
 - Solving linear equations (including fractional coefficients)
 - Word problems (Forming equations)
- Linear Graphs
 - Introduction to Graphs
 - Plotting coordinates; basic

ENGLISH:

- Comprehension
- Creative Writing
- Vocabulary

CRITICAL REASONING:

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ADMISSION TEST SYLLABUS

FOR STUDENTS APPLYING FOR ADMISSIONS TO GRADE 9

MATHEMATICS:

- Ratios and Proportion
 - Give ratios in their simplest form.
 - Divide a quantity in a given ratio
 - Use proportional reasoning and ratios in context.
 - Rates
 - Algebraic manipulation
 - Simplify expressions by collecting like terms.
 - Expand products of algebraic expressions.
 - Factorize by extracting common factors.
 - Algebraic fractions
 - Manipulate algebraic fractions.
 - Factorize and simplify rational expressions.
 - Equations
 - Construct expressions, equations, and formulas.
 - Solve linear equations in one unknown.
 - Solve fractional equations with numerical and linear algebraic denominators.
 - Solve quadratic equations by factorization.
 - Solve simultaneous linear equations in two unknowns.
 - (word problems included)
 - Percentages
 - Geometrical Construction
 - Measure and draw lines and angles.
 - Construct a triangle, given the lengths of all sides, using a ruler and pair of compasses only.
- Rhombus

ENGLISH:

- Comprehension
- Creative Writing
- Vocabulary

CRITICAL REASONING:

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ADMISSION TEST SYLLABUS

FOR STUDENTS APPLYING FOR ADMISSIONS TO GRADE 10

MATHEMATICS:

- Ratios and Proportion
 - Give ratios in their simplest form.
 - Divide a quantity in a given ratio
 - Use proportional reasoning and ratios in context.
- Rates
- Equations
 - Solve quadratic equations by completing the square and by use of the quadratic formula.
 - Change the subject of formulas.
 - Solve simultaneous linear equations in two unknowns.
 - Solve simultaneous equations, involving one linear and one non-linear.
- Indices & Standard form
- Coordinate Geometry
 - Interpret and obtain the equation of a straight-line graph.
 - Parallel Lines
 - Find the gradient and equation of a straight line parallel to a given line.
 - Perpendicular lines
 - Find the gradient and equation of a straight line perpendicular to a given line
- Inequalities
- Percentages

ENGLISH LANGUAGE:

- Comprehension
- Creative Writing
- Vocabulary

CRITICAL REASONING:

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ADMISSION TEST SYLLABUS

FOR STUDENTS APPLYING FOR ADMISSIONS TO GRADE 11

MATHEMATICS:

- Factors and Multiples
- Square and Cube Roots
- Fractions and Decimals
- Arithmetic Problems
- Number Sequence
- Algebraic Equations and Word Problems
- Quadratic Equations
- Ratio, Rate Proportions
- Percentages
- Profit Loss Discount, Simple Interest
- Indices and Standard form
- Coordinate Geometry
- Properties of Circle and Angles
- Trigonometry
- Sets and Venn Diagrams
- Statistics
- Matrices
- Linear Inequalities
- Area and Volume of Geometrical Figures
- Graphs and Identifications

ENGLISH LANGUAGE:

- Comprehension
- Creative Writing
- Vocabulary

CRITICAL REASONING:

The critical reasoning test consists of questions that test your ability to analyze logical arguments, such as number, pattern and symbol sequences, pattern recognitions and formation, true and false statements and other similar logical questions.