RAFFLES INSTITUTION
2025 YEAR 3 ADMISSION (AY2026)

Information Booklet
on Placement Test Syllabus

INFORMATION BOOKLET
SYLLABUS FOR ENGLISH, MATHEMATICS & SCIENCE PLACEMENT TESTS

ENGLISH PLACEMENT TEST

Candidates will be assessed on their ability to:

- Write coherently and cohesively, for a purpose and an audience

- Present and develop ideas meaningfully and creatively, for an intended effect

- Respond in writing to a variety of texts

- Show understanding of a variety of written texts at the literal, inferential and evaluative levels

- Show understanding of how use of language achieves purpose and impact

- Identify main ideas and details in written texts

- Synthesise, summarise and organise information

Level	Format	Duration
Year 3	There are two papers for the placement test. Paper 1: Essay Writing Students write 350–500 words on one of three questions set. The type of essay to be written is the personal expository essay. Paper 2: Reading Comprehension Students respond to a variety of questions based on two texts – one is a narrative or a recount while the other is an expository text. For the expository text, students are also expected to write an 80-word response to a summary writing task.	1 hour for Paper 1 1 hour 30 min for Paper 2

MATHEMATICS PLACEMENT TEST

FORMAT

Duration: ***2 hours***

Format of paper:

Marks	Remarks
80	Answer all questions. Use of calculator is allowed. Question marks range from 3 to 12 marks.

PLACEMENT TEST SYLLABUS

INDICES & STANDARD FORM
1. Laws of Indices
2. Zero and Negative Indices
3. Fractional Indices
4. Equations Involving Indices
5. Standard Form or Scientific Notation

SOLVING QUADRATIC EQUATIONS
1. Expansions of polynomials
2. Perfect Squares and Difference of Two Squares
3. Factorisation of Quadratic Polynomials
4. Factorisation by grouping
5. Solution of quadratic equations by factorisation, completing the square and formula
6. Problems involving quadratic equations

ALGEBRAIC MANIPULATION AND FORMULAE
1. Multiplication and division of algebraic fractions
2. Equations involving algebraic fractions
3. Problems involving algebraic fractions
4. Changing the subject of a formulae
5. Linear Inequalities

SIMULTANEOUS EQUATIONS
1. Elimination method
2. Substitution method
3. Problems involving simultaneous equations
4. Solving Simultaneous Non Linear equations (reducible to quadratic form)

LINEAR AND QUADRATIC GRAPHS
1. Graphs of linear functions and quadratic functions
2. Solving simultaneous linear equations using graphical method
3. Graphs in practical situations
4. Graphical solutions of quadratic and other non-linear equations

PYTHAGORAS' THEOREM AND TRIGONOMETRICAL RATIOS
1. Pythagoras' theorem
2. Trigonometrical ratios
3. Solving right-angled triangles using trigonometrical ratios
4. Finding the value of an angle with trigonometrical ratios
5. Practical applications of trigonometry (including 3D)
   - angle of elevation
   - angle of depression

MENSURATION
1. Area and circumference of a circle
2. Length of arc and area of sector
3. Volume and surface area of a prism
4. Volume and surface of a pyramid
5. Volume and curved surface area of circular cones
6. Volume and surface area of a sphere and hemisphere

CONGRUENCY AND SIMILARITY
1. Congruent Figures
2. Notation for Congruency
3. Similar Figures
4. Congruent Triangles
5. Congruency Tests
6. Similar Triangles
7. Tests For Similarity Between Two Triangles
8. Areas of Similar Figures
9. Volumes of Similar Solids

SET THEORY
1. Set Notations
2. Union and Intersection of Sets
3. Venn Diagram

SCIENCE PLACEMENT TEST

Format: Answer ALL questions. Use of an approved scientific calculator is allowed.

Duration: 2 hours

Sections	Type of questions	Number of questions	Number of marks per question	Total marks
A	Multiple-Choice	30	1	30
B	Structured Questions	Variable	Variable	50
	Total			80

Subject Content:

Physics
1   Particulate Nature of Matter
2   Units and Measurements
3   Forces and Pressure
4   Energy, Work and Power
5   Heat Transfer
6   Reflection
7   Refraction
8   Electricity

Chemistry
9   Elements, Compounds and Mixtures
10   Atoms, Molecules and Ions
11   Atomic Structure
12   Periodic Table
13   Separation Techniques
14   Chemical Bonding and Structure
15   Chemical Changes, Formulae and Equation Writing
16   Acids and Bases

Biology
17   Diffusion, Osmosis and Active Transport
18   Cells
19   Biological Molecules
20   Nutrition in Humans
21   Reproduction in Man

Scientific Reasoning
No prescribed topics