I. COMPREHENSION

The candidate will be given a suitable passage and asked to answer the questions based on the passage. There will also be exercises based on the passage.

II. WRITING SKILLS

The candidate appearing for the exam should be able to write a story or composition based on hints given or a relevant topic.

III. VOCABULARY AND GRAMMAR

Grammar (reported speech; choose the correct form of the word given in brackets)
Vocabulary exercises.

The entrance examination will test the student in the above areas. These areas are broadly delineated cannot be specified in a detailed or precise manner in the curriculum content.

SCHEME OF ASSESSMENT FOR ENGLISH FOR CLASS VIII

<table>
<thead>
<tr>
<th>Assessment Objectives</th>
<th>Weightage (%)</th>
<th>Duration of Paper</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exercises based on Comprehension</td>
<td>40</td>
<td>1 Hour</td>
<td>50 Marks</td>
</tr>
<tr>
<td>Creative Writing</td>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vocabulary and Grammar</td>
<td>40</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
I. MATHEMATICAL KNOWLEDGE WITH UNDERSTANDING OF CONCEPTS

The candidate taking the entrance exam should be able to present mathematical knowledge and understanding of concepts in relation to:

a. Organise and present information accurately in written, tabular, graphical and diagrammatic forms.
b. Perform calculations by suitable methods.
c. Understand systems of measurement in everyday use and make use of them in the solution of problems.
d. Estimate, approximate and work to degrees of accuracy appropriate to the context.

II. APPLICATIONS OF CONCEPTS – PROBLEM SOLVING SKILL

The candidate taking the entrance exam should be able to solve the numerical problems using appropriate formulae, symbols, units, graphs etc. The candidate will be tested on the following skills:

a. Interpret, transform and make appropriate use of mathematical statements expressed in words or symbols.
b. Recognise and use spatial relationships in two and three dimensions, particularly in solving problems.
c. Recall, apply and interpret mathematical knowledge in the context of everyday situations.
d. Make logical deductions from given mathematical data.
e. Recognise patterns and structures in a variety of situations, and form generalizations.
f. Respond to a problem relating to a relatively unstructured situation by translating it into an appropriately structured form.
g. Analyse a problem, select a suitable strategy and apply an appropriate technique to obtain its solution.
h. Apply combinations of mathematical skills and techniques in problem solving.
i. Set out mathematical work, including the solution of problems, in a logical and clear form using appropriate symbols and terminology.

The entrance examination will test the above objectives. These skills cannot be further specified in a detailed or precise manner in the curriculum content. However the questions are well within the syllabus of the entrance examination.
### Assessment Objectives

<table>
<thead>
<tr>
<th>Assessment Objectives</th>
<th>Weightage (%)</th>
<th>Duration of Paper</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematical Knowledge</td>
<td>30</td>
<td>45 Minutes</td>
<td>50 Marks</td>
</tr>
<tr>
<td>Understanding of Concepts</td>
<td>30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Application Skills</td>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Problem solving skills</td>
<td>20</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### SYLLABUS OUTLINE OF MATHEMATICS FOR CLASS VIII

#### Numbers and Number sense

- The student will
  - a) compare and order rational numbers using mathematical symbols <, > and =.
  - b) use arithmetic operators (+, -, × and ÷) and the laws of exponents (indices) to simplify numerical expressions involving rational numbers and decimals.
  - c) will solve multi step simplifications involving operations on rational numbers using BODMAS, i.e. hierarchy of operations (Bracket of Division, Multiplication, Addition and Subtraction)
  - d) convert a given rational number into decimal and vice versa

#### Algebra

- The student will
  - a) simplify algebraic expressions using basic operations
  - b) simplify/factorize the algebraic expressions using standard identities \((a + b)^2\), \((a - b)^2\) and \(a^2 - b^2\).
  - c) frame and solve linear equations in one variable.

#### Ratio and Proportion and commercial mathematics

- The student will
  - a) solve problems using direct and inverse variations.
  - b) calculate simple interest/principal/rate of interest/time
  - c) solve word problems using percentage, profit & loss and discount.
Measurement and Geometry

➢ The student will
  a. find the surface area and volume of cube and cuboids.
  b. solve problems involving area and perimeter of square and rectangle.
  c. solve simple problems using the properties of quadrilaterals, circles and congruence of triangles.

Statistics

➢ The student, given a problem situation, will analyze, display, and interpret data in a variety of graphical methods, including line and bar graphs and draw inferences from graphs.
I. FACTUAL KNOWLEDGE WITH UNDERSTANDING OF CONCEPTS

The candidate taking the entrance exam should be able to present factual knowledge and understanding of concepts in relation to:

a. Facts, phenomena and laws.
b. Define terms:
   Definition of physical, chemical and biological terms with SI units, symbols and equations.
c. Explain a concept using examples from daily life or laboratory apparatuses
d. Explain or suggest applications of science and technology in daily life with appropriate examples.

II. APPLICATION OF CONCEPTS – PROBLEM SOLVING

The candidate taking the entrance exam should be able to solve the numerical problems using appropriate formulas, symbols, units, graphs etc. The candidate will be tested on the following skills:

a. Present the information given in the problem accurately.
b. Convert units from one form to another.
c. Manipulate data and equations (Physical and Chemical).
d. Present the solution with appropriate steps.
e. Present the result as desired by the problem with appropriate units.

III. OTHER SKILLS

Identification of appropriate diagrams, pictures and their labels. Diagrams include experiments in physics, chemical apparatuses / setups and biological structures.

The entrance examination will test the above objectives. These skills cannot be further specified in a detailed or precise manner in the curriculum content. However the questions are well within the syllabus of the entrance examination.
### SCHEME OF ASSESSMENT FOR SCIENCE FOR CLASS VIII

<table>
<thead>
<tr>
<th>Paper</th>
<th>Assessment Objective</th>
<th>Weightage (%)</th>
<th>Duration of the paper</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrance to class 8</td>
<td>Factual Knowledge</td>
<td>30</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Understanding of Concepts</td>
<td>30</td>
<td>1 Hour</td>
<td>50 Marks</td>
</tr>
<tr>
<td></td>
<td>Application</td>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other Skills</td>
<td>20</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### SYLLABUS OUTLINE OF SCIENCE FOR CLASS VIII

**TOPICS:** FOOD; MATERIALS OF DAILY USE; WORLD OF THE LIVING; MOTION; ELECTRICITY; LIGHT; NATURAL RESOURCES;

### FOOD
- Nutrition in plants: How does plant obtain food?
- How does animals utilise plant food?
- Knowledge of terms like Heterotropes, Autotropes and Photosynthesis.
- Human digestive system: Role of Teeth, Stomach and Intestines.

### MATERIALS OF DAILY USE
- Natural and Man-made fiber: Wool, silk and cotton.
- Extraction of silk from silkworms – Process.
- Different clothes for different regions of the world.

### ACIDS, BASES AND SALTS
- Physical and chemical properties of acids and bases
- Acids and bases in daily life (lactic acid in milk, vinegar in pickles etc)
PHYSICAL AND CHEMICAL CHANGES

- Distinguish between physical and chemical change

WORLD OF THE LIVING

- Soil: Types of soil
- Absorption of water by soil.
- Crops grown in different soils.
- Climate: Adaptation of animals in different climates.

MOTION

- Measurement of time: Different devices used to measure time.
- Measurement of speed.

ELECTRICITY

- Working of an electric bulb.
- Working of an electric fuse.
- Construction of an electromagnet and its uses.

LIGHT

- Basic property of light: Light travels in a straight line, formation of shadows etc.
- Reflection of light from different surfaces like metal, wall etc.
- Colors in sunlight.

NATURAL RESOURCES

- Water as a natural resource.
- Various sources of water in nature: River, Pond, Lake etc.
- Scarcity of water.
- Forest: Resources that can be obtained from forests.
- Waste management.

Questions will also be asked to test the general awareness in science pertaining to the age group.