

## **SYLLABUS: ENGLISH**

### **I. A short passage followed by four questions to test comprehension.**

The questions will be set :

1. To judge understanding of the passage.
2. To draw inference
3. To judge understanding of vocabulary

### **II. Grammar – 1**

1. Subject – verb concord
2. Forms of verbs and errors in the use of verbs, etc.
3. Sequence of tenses and errors in the use of tenses
4. Transformation of sentences – Compound, Complex, Simple, Negative, Affirmative, Comparative degree, Positive degree, Superlative degree etc.

### **III. Grammar – 2**

1. Formation of words - Nouns from verbs and adjectives, Adjectives from nouns and verbs, Adverbs from adjectives etc
2. Determiners
3. The Preposition
4. Nouns and Pronouns
5. The Adjective
6. The Adverb
7. The Conjunction
8. The Modals
9. Clauses - Noun clauses, Adverb clauses of condition and time and Relative clauses

### **IV. Vocabulary**

1. Synonyms and Antonyms in context
2. Antonyms and Synonyms in context
3. One word substitution
4. Spelling pitfalls
5. Simple Idioms/phrases
6. Words often confused/Selecting the correct word fitting in a sentence

**V. Narration (Direct and Indirect)**

1. Commands and requests
2. Statements (Various tenses)
3. Questions (Various forms of questions, tenses, etc.)

**VI. Voice (Active and Passive)**

1. Changes required under each tense.
2. Other conditions for transforming Active into Passive
  - (a) The Preposition
  - (b) Modal auxiliaries
  - (c) Infinitive
  - (d) Participles

**VII. Jumbled Sentence**

SYLLABUS: MATHEMATICS

**FOR GROUP 'X' (TECHNICAL TRADES)**

1. Sets, Relations and functions
2. Trigonometric Functions
3. Inverse Trigonometric Functions
4. Complex Number and Quadratic Equations
5. Linear Inequalities
6. Mathematical Induction
7. Permutations and Combinations
8. Binomial Theorem
9. Sequences and Series
10. Cartesian system of rectangular co-ordinates
11. Straight lines and family of lines
12. Circles and family of circles
13. Conic sections
14. Three-dimensional Geometry
15. Matrices and Determinants
16. Limit and Continuity
17. Differentiation
18. Applications of Derivatives
19. Indefinite integrals
20. Definite Integrals
21. Applications of the Integrals
22. Differential Equations
23. Mathematical Reasoning
24. Linear Programming
25. Vector
26. Probability
27. Statistics

SYLLABUS - PHYSICS  
**FOR GROUP 'X' (TECHNICAL TRADES)**

<b>Sr No</b>	<b>Topic</b>
1	Physical World and Measurement
2	Kinematics
3	Laws of Motion
4	Work, Energy and Power
5	Motion of System of Particles and Rigid Body.
6	Gravitation
7	Properties of Bulk Matter
8	Thermodynamics
9	Behaviour of Perfect Gases and Kinetic Theory of Gases.
10	Oscillations and Waves
11	Electrostatics
12	Current Electricity
13	Magnetic Effects of Current and Magnetism
14	Electromagnetic Induction and Alternating Current
15	Electro Magnetic Waves
16	Optics
17	Dual Nature of Matter and Radiation
18	Atoms and Nuclei
19	Electronic Devices
20	Communication Systems

## SYLLABUS RAGA

### **Reasoning (Verbal and Non- Verbal )**

1. Numerical series.
2. Distance and Direction sense Test.
3. Mathematical Operations
4. Number, Ranking & Time Sequence Test.
5. Assign Artificial Values to Mathematical Digit.
6. Inserting Correct Mathematical sign.
7. Human relation.
8. Coding & Decoding
9. Odd man out.
10. Mutual relation problems.
11. Tallest, youngest relations.
12. Dictionary words.
13. Analogy.
14. Non- Verbal reasoning.
15. Number coding.
16. Number Puzzle.

### Mathematics

1. Ratio and Proportion.
2. Average.
3. LCM & HCF.
4. Profit and Loss.
5. Time, Distance and Speed.
6. Percentage.
7. Simplifications of Numbers.
8. Fractions.
9. Area of triangle, Square and Rectangle.
10. Surface Area and volume of Cuboids, Cylinder, Cone and Sphere.
11. Probability.
12. Simple Trigonometry.

### General Knowledge and Current Affairs

1. General Science
2. Civics
3. Geography

4. Current Events
5. History
6. Basic Computer Operations

