

SYLLABUS

F.M. - 40

CLASS - X

GRAMMAR - 20 (Marks)

Nominative absolute * Tag question * Transformation of sentence (Changing parts of speech) * Phrasal verb * Phrase and Idioms * Clause * Simple, complex and compound sentences, Gender * Verbal nouns * Error correction * Co-relatives * Determiners * Appropriate prepositions * Articles * Tense * Positive and negative sentences * Adjectives and degree changes * Participle adjectives * Voice changes * Use of prepositions * Use of Modal auxiliary * Use of Infinitive * Participle * Direct and Indirect speech * Joining * One word substitution * Use of Adverbs * Prefix and Suffix * Simple transformation of sentences.

COMPREHENSION - 10 Marks

Short question, * True, False * Fill in the blanks * Finding similar meaning * Cause and effect

WRITING & SPOKEN EXPRESSION - 10 (Marks)

Situation based function like giving advice, stating preferences, discussing probability, making and offer etc. And classified Message, Formal letter instruction, Editorial letter format etc.

For Class X
General Science (FM-20)

Physical Science:

1. Concerns about our environment
2. Behaviour of gases
3. Chemical calculations
4. Thermal Phenomena
5. Light
6. Current electricity
7. Atomic Nucleus
8. Periodic table and periodicity of the properties of element
9. Chemical bonding: formation Ionic and covalent compounds and their properties
10. Electrolysis and its application
11. Preparation and properties of NH_3 , H_2S , N_2 , HCl , HNO_3 , H_2SO_4
12. Metallurgy: Basic principle, methods, alloys (Fe, Cu, Zn, Al)
13. Organic Chemistry: IUPAC name, preparation and properties of alkane, alkene, alkyne.
14. Some synthetic polymer (PVC, polythene, Teflon): structure, formulae, and their monomer. Thermoplastic and thermosetting polymer, examples biodegradable polymer.

Life Science:

1. Control and co-ordination in living organism:
sensitivity and response in plants,
response and chemical co-ordination in plants-hormones,

response and chemical co-ordination in animals-hormones,
response and physical co-ordination in animals-nervous system,
Locomotion as a type of response in animals,

2. Continuity of life:

Cell division and cell cycle
Reproduction
reproduction in flowering plants
Growth and development,

3. Heridity and common genetic diseases,

4. Evolution and adaptaion,

5. Environment, its resources and their conservation

Nitrogen cycle,
Environmental pollution
Environment and human population
Biodiversity and conservation

Mathematics (FM-40)

1. Reasoning

- (i) Series completion and inserting
- (ii) Coding-decoding
- (iii) Logical verbal diagram
- (iv) Alpha numeric series
- (v) Embedded picture
- (vi) Picture formation
- (vii) Paper folding and cutting
- (viii) problems on dice and cube

2. Arithmetic

- (i) Simple interest
- (ii) Compound interest, uniform rate of increase or decrease
- (iii) Partnership business
- (iii) Rectangular parallelepiped or cuboid.
- (iv) Right circular cylinder
- (v) Sphere
- (vi) Right circular cone

3. Algebra

- (i) Quadratic equation with one variable
- (ii) Ratio and proportion
- (iii) Quadratic surds

- (iv) Variation
- (v) Statistics: Mean, median, mode, ogive

4. Geometry & trigonometry

- (i) Theorems related to circle
- (ii) Theorems related to angles in a circle
- (iii) Theorems related to cyclic quadrilateral
- (iv) Construction: Construction of circumcircle and in circle of a triangle,
Construction of tangent to a circle
Construction: Determination of mean proportional
- (v) theorems related to tangent to a circle
- (vi) Similarity
- (vii) Concept of measurement of angle
- (viii) Trigonometric ratios and trigonometric identities
- (ix) Trigonometric ratios of complementary angles
- (x) Height and distance
- (xi) Pythagoras theorem