

SYLLABUS FOR ENTRY TEST – 1st YEAR – 2025

English

The syllabus has been revised to provide the aspirant candidates an outline of the topics in which they shall be examined in the upcoming Entry test 2025. The main purpose of the targeted topics is to assess the literary, grammatical, comprehension, creative and conceptual abilities of the students in the subject of English. The topics are:-

- Tenses
- Parts of Speech
- Poetic Devices
- Prefix/suffix
- Arrangement of sentences
- Gerunds
- Idioms
- Phrasal Verbs
- Active/ passive
- Narration
- Types of sentences
- Structure of sentences
- Phrase & Clauses
- Singular/plurals
- Spelling Correction
- Words meanings
- Synonyms/antonyms
- Words sentences
- Translation (Urdu to English, English to Urdu)
- Paraphrasing
- Comprehension
- Essay Writing
- Story Writing
- Picture Depiction
- Letter Writing
- Application Writing
- Dialogue Writing

Physics:-

- Unit 10: Simple Harmonic Motion
- Unit 12: Geometrical Optics
- Unit 13: Electrostatics
- Unit 14: Current Electricity
- Unit 15: Electromagnetism
- Unit 18: Nuclear Physics

Chemistry:-

Reference: Chemistry for Grade X (KPK Textbook Board Peshawar)

- Chemical Equilibrium:
 - Reversible reaction & Dynamic Equilibrium,
 - Law of Mass Action, Equilibrium Constant & its Units,
 - Importance and Conditions of Equilibrium.
- Acid Bases and Salts:
 - Various Concept of Acid & bases,
 - pH Scale and pOH Scale,
 - Salts, Neutralization Reaction.
- Organic Chemistry:
 - Organic Compounds, Characteristics, and Uses,
 - Alkanes & Alkyl Radicals,
 - Functional Groups,
 - Homologous Series.
- Hydrocarbons:
 - Alkanes,
 - Alkenes,
 - Alkynes (All Physical, Chemical Properties & Reaction).
- Biochemistry:
 - Carbohydrates,
 - Proteins,
 - Lipids,
 - Vitamins
- Chemical Industries:
 - Metallurgy & Basic metallurgical Operations,
 - Solvay Process,
 - Petroleum Industry.
- Environmental Chemistry:
 - Atmosphere,
 - Air pollution, Acid rain, Ozone
 - Water, Soft & Hard Water,
 - Water Borne Diseases & Effect of Water Pollution.

Maths (For Pre-Engineering Only):-

- **Quadratic Equations:** Solution of Quadratic equations using Factorization, Completing the squares method and Quadratic formula.
- **Theory of Quadratic Equations:** Solve Cube roots, Properties of cube roots of Unity, Proofs involving ω and ω^2 .
- **Variation:** Ratio, proportion and Real life problems based on variations (direct and inverse).

- **Partial Fractions:** with repeated and non-repeated Linear factors, repeated and non-repeated quadratic factors.
- **Sets & Function:** Set theory, Binary relations, Functions & its types.
- **Basic Statistics:** Calculate Arithmetic mean, Median, Mode, and Geometric mean & Harmonic mean for Un-grouped & Grouped data. Calculate Range, variance & standard deviation for Un-grouped & Grouped data
- **Trigonometry:** Trigonometric ratios and their real life application.
- **Reference: Mathematics for Grade X** (KPK Textbook Board Peshawar)

Biology (For Pre-Medical Only):-

- Homeostasis
- Coordination and control
- Support and movement
- Biotechnology.
- Inheritance