

11th Class Syllabus

A. Syllabus Aim

The syllabus for the entry test has been carefully revised and designed to guide candidates in achieving a strong foundational understanding of each subject before admission to TNF. It aims to create a balance between knowledge, comprehension, and practical skills, enabling students to become confident and capable learners as they progress in their education.

Math

Quadratic Equation (Solution of quadratic Equations, solution of types of quadratic equations, Theory of Quadratic Equation (Discriminant, nature of roots, complex cube roots of unity, sum and product of roots, factor theorem, remainder theorem, synthetic division, Variations (Proportions, direct and inverse variations, theorems, k method), Partial Fractions (solution of four types), Sets and Functions (Types of sets, Forms of sets - descriptive, tabular & set builder, and their usage in problem solving, Operation and properties of sets, Union, Intersection, Difference & Complement, Laws of union, intersection, and complement, Function and its types), Basic Statistics (Mean, median, mode, variance, and standard deviation, Introduction to Trigonometry (measurement of angle in different systems of units, Trigonometric ratios, area of sector, quadrantal angles, angles of elevation and depression, Chords of Circle (5 theorems)

English

MCQs (10th English book complete Punjab textbook) Grammar: All tenses and Parts of Speech, Types of Sentences, Clauses, Phrases, Change the Narration and Active and Passive Voice, Moral Story, Essay, Pair of Words and Use of Idioms, Words and Phrasal Verbs.

اردو

دسویں کے نصاب کے مطابق، ادا جعفری، حسرت موہانی، جگر مراد آبادی کی غزلوں کی تشریح، حروف کی اقسام، کلمہ کی اقسام، کسی ایک موضوع پہ مضمون، اصناف ادب کی تعریف اور مثالیں، علم بیان کی اقسام کی وضاحت،،



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Physics

Simple Harmonic motion and its related terms, waves and its types, sound waves and its characteristics, Audible frequency range, ultrasound and its uses, Reflection and refraction of light, spherical Mirrors And lens, Total internal Reflection of light and its applications, image formation by lens, Human eye, electric Charge and its production, Coulomb law, Electric Field and electric field intensity, Capacitors and capacitance, uses of capacitors, electric current and conventional current, potential Difference and electromotive force, ohm,s law and Resistance, conductors and insulators, electrical energy and joule,s law, Electric power and kilowatt hour, alternating and direct current, magnetic effect of current and solenoid, DC motor and AC generator, Mutual Induction and transformer, Electron Gun and Cathode Ray Oscilloscope, Logic Gates, computer and Internet, Atom and Nucleus, Nuclear Transmutation, ionizing effect and penetrating ability, Half life, Nuclear Fission and Nuclear Fusion.

Chemistry syllabus

Element compound and mixture, how to write molecular formula, Concept of mole, Discovery of electron, proton and neutron. Rutherford's atomic model and its effects, Electronic configuration, isotopes, Periodic table. Periodicity Properties like ionization energy, electronegativity and electron affinity. Gases properties and different laws of gases, Liquids' properties, evaporation, vapour pressure and boiling point. Solids and their properties. Oxidation and reduction reaction. Oxidation state and rules for assigning oxidation state. Electrochemical cell, electrolytic cell, electrochemical industries and corrosion and its prevention. Importance of equilibrium constant, concepts of acids and bases all theories. General properties of acids and bases (both physical and chemical properties). Salts, characteristics, types and uses. Classification of organic compounds. Sources of organic compounds, coal, petroleum and natural gas. Alkane and alkyl radicals, Test for functional group, Preparation and chemical reaction of alkane. Preparation and chemical reaction of alkene, Preparation and chemical reaction of alkyne, Carbohydrates, types, sources and uses, Protein sources and uses. Composition of atmosphere, Acid rain and its effects, Ozone depletion and its effect, Properties of water. Hydrogen bonding, Soft and hard water, Water pollution and waterborne infectious disease. Basic metallurgical operations, Manufacture of Sodium Carbonate by Solvay's Process. Manufacturing of Urea,