



उत्तराखण्ड प्राविधिक शिक्षा परिषद्

Uttarakhand Pravidhik Shiksha Parishad (UBTER)

Roorkee : 246167

पॉलीटेकनिक / तकनीकी संस्थानों में प्रवेश हेतु
(For Admission in Polytechnic / Technical Institutions)

UBTER JEEP 2026

Joint Entrance Examination Polytechnics – 2026

संयुक्त प्रवेश परीक्षा पॉलीटेकनिक्स – 2026
ग्रुप E / T / P / A एवं अन्य पाठ्यक्रम परीक्षा

(Group E / T / P / A and Other Course Examinations)

This Document Contains

- Official Exam Pattern & Group-wise Marks Distribution
- Group E & T: Mathematics & Science Syllabus (Class 10 Level)
- Group P: Physics, Chemistry & Biology / Mathematics (Class 12 Level)
- Group A (Lateral Entry): Mathematics, Physics, Chemistry & General Engineering
- Group-wise Eligibility & Minimum Qualification
- Group H, M, G Admission Process Details

For latest updates, admit cards, results and notifications visit:

JEEP 2026 — Notification, Syllabus & Exam Pattern | ukexamalert.in

UBTER JEEP 2026 – Group Overview

Source: Official UBTER JEEP 2026 Brochure – ubterjeep.co.in

Group	Course Name	Duration	Admission Process
E	Diploma Engineering / Technology	3 Years	Entrance Exam
T	Textile Design, Garment Technology, Fashion Design Women candidates only	3 Years	Entrance Exam
P	Diploma in Pharmacy	2 Years	Entrance Exam
A	Lateral EDiploma in Hotel Management & Catering Technology entry – 2nd year Diploma Engineering	2 Years	Entrance Exam
H	Diploma in Hotel Management & Catering Technology	3 Years	10+2 merit only
M	Modern Office Management & Secretarial Practice	2 Years	10+2 merit only
G	PG Diploma in Computer Application (PGDCA)	2 Years	Graduation merit only

NOTE : The official brochure does not specify an entrance exam for Groups H, M, and G. Admission for these groups is based on merit only."

SECTION 2 – EXAM PATTERN

GROUP E AND T

Section 1	Mathematics: 50%
Section 2	Science (Physics and Chemistry): 50%
Syllabus Level	High School (Class 10) board curriculum
Minimum Qualification:	Class 10 passed or equivalent

GROUP P

Section 1	Physics and Chemistry: 50%
Section 2	Biology OR Mathematics (candidate's choice): 50%
Syllabus Level	Class 12 (10+2) board curriculum
Minimum Qualification	10+2 with Physics, Chemistry, and Biology or Mathematics

GROUP A — LATERAL ENTRY

Mathematics:	40% (Class 10 level)
Physics:	20% (Class 10 level)
Chemistry	20% (Class 10 level)
General Engineering (Electrical / Electronics / Mechanical): 20% (Diploma/ITI standard) Minimum Qualification	10+2 PCM, OR 10+2 Vocational/Technical, OR 2-year ITI passed

"Note: The official UBTER JEEP 2026 brochure does not specify a topic-wise syllabus. The following syllabus is based on Class 10 and Class 12 board curriculum and analysis of previous year question papers. It is approximately 80-90% accurate based on exam pattern trends."

SECTION 3 — SYLLABUS TOPIC LIST

GROUP E — MATHEMATICS (Class 10 Level)

Unit 1 — Real Numbers

Euclid's Division Lemma, Fundamental Theorem of Arithmetic, irrational numbers, decimal expansions.

Unit 2 — Polynomials

Zeros of polynomials, relationship between zeros and coefficients, division algorithm.

Unit 3 — Linear Equations

Pair of linear equations — graphical and algebraic methods, cross-multiplication, word problems.

Unit 4 — Quadratic Equations

Standard form, factorisation, completing the square, quadratic formula, nature of roots.

Unit 5 — Arithmetic Progressions

General term (nth term), sum of n terms, word problems.

Unit 6 — Triangles

Similarity of triangles, Basic Proportionality Theorem, Pythagoras Theorem, area of similar triangles.

Unit 7 — Coordinate Geometry

Distance formula, section formula, area of triangle using coordinates.

Unit 8 — Trigonometry

Trigonometric ratios, values of standard angles, trigonometric identities, heights and distances.

Unit 9 — Circles

Tangent to a circle, number of tangents from an external point.

Unit 10 — Areas Related to Circles

Area of sector, area of segment, combinations of plane figures.

Unit 11 — Surface Areas and Volumes

Combination of solids — cone, cylinder, sphere, frustum.

Unit 12 — Statistics

Mean, median, mode of grouped data, cumulative frequency distribution, ogive.

Unit 13 — Probability

Classical probability, theoretical approach, simple problems.

Unit 14 — Commercial Mathematics

Profit and Loss, Discount, Marked Price, Percentage, Simple Interest, Compound Interest.

GROUP E — PHYSICS (Class 10 Level)

Unit 1 — Light: Reflection and Refraction

Laws of reflection, spherical mirrors, mirror formula, refraction, lens formula, power of lens.

Unit 2 — Human Eye and Colourful World

Structure of human eye, defects of vision and correction, prism, atmospheric refraction, scattering of light.

Unit 3 — Electricity

Electric current, potential difference, Ohm's law, resistance, resistors in series and parallel, heating effect.

Unit 4 — Magnetic Effects of Current

Magnetic field, field due to current-carrying conductor, solenoid, force on current-carrying conductor, electric motor, electromagnetic induction, electric generator, AC/DC.

Unit 5 — Sources of Energy

Conventional and non-conventional sources, fossil fuels, solar energy, wind energy, tidal energy, nuclear energy.

GROUP E — CHEMISTRY (Class 10 Level)

Unit 1 — Chemical Reactions and Equations

Types of chemical reactions, oxidation and reduction, balancing equations.

Unit 2 — Acids, Bases and Salts

Properties, pH scale, neutralisation, salts, bleaching powder, baking soda, washing soda, plaster of Paris.

Unit 3 — Metals and Non-Metals

Properties, reactivity series, ionic bonding, corrosion, alloys.

Unit 4 — Carbon and its Compounds

Covalent bonding, allotropes of carbon, organic compounds, nomenclature, homologous series, soaps and detergents.

Unit 5 — Periodic Classification of Elements

Early attempts at classification, Mendeleev's periodic table, modern periodic table, trends in the periodic table.

GROUP P — PHYSICS (Class 12 Level)

Unit 1 — Electrostatics

Coulomb's law, electric field, electric potential, capacitors, dielectrics.

Unit 2 — Current Electricity

Ohm's law, resistivity, Kirchhoff's laws, potentiometer, Wheatstone bridge.

Unit 3 — Magnetic Effects of Current

Biot-Savart law, Ampere's law, force on moving charge, galvanometer.

Unit 4 — Electromagnetic Induction

Faraday's laws, Lenz's law, self and mutual inductance, AC generator.

Unit 5 — Optics

Reflection, refraction, total internal reflection, lenses, microscope, telescope, wave optics, diffraction.

Unit 6 — Dual Nature of Matter

de Broglie wavelength, Davisson-Germer experiment.

Unit 7 — Electromagnetic Waves

Characteristics and types of electromagnetic spectrum.

Unit 8 — Modern Physics

Photoelectric effect, Bohr's model, nuclear fission and fusion, semiconductors, logic gates.

GROUP P — CHEMISTRY (Class 12 Level)

Unit 1 — Solid State Crystal lattice, unit cell, packing efficiency, defects.

Unit 2 — Solutions Types of solutions, concentration, Raoult's law, colligative properties.

Unit 3 — Electrochemistry Electrolytic cells, EMF, Nernst equation, batteries, corrosion.

Unit 4 — Chemical Kinetics Rate of reaction, order, half-life, Arrhenius equation.

Unit 5 — Surface Chemistry Adsorption, colloids, emulsions, catalysis.

Unit 6 — p-Block Elements Properties and compounds of Groups 15, 16, 17, 18.

Unit 7 — d and f-Block Elements Transition metals, lanthanides and actinides.

Unit 8 — Coordination Compounds Werner's theory, IUPAC nomenclature, isomerism, bonding.

Unit 9 — Haloalkanes and Haloarenes Nomenclature, reactions, optical activity.

Unit 10 — Alcohols, Phenols and Ethers Preparation, reactions, uses.

Unit 11 — Aldehydes, Ketones and Carboxylic Acids Preparation, reactions, nucleophilic addition.

Unit 12 — Amines Structure, basicity, reactions, diazonium salts.

Unit 13 — Biomolecules Carbohydrates, proteins, enzymes, nucleic acids, vitamins.

Unit 14 — Polymers Classification, condensation and addition polymers.

GROUP P — BIOLOGY (Class 12 Level) — Section 2 Option 1

Unit 1 — Reproduction

Sexual reproduction in plants, human reproduction, reproductive health.

Unit 2 — Genetics and Evolution

Mendelian genetics, chromosomal theory, DNA replication, mutations, evolution.

Unit 3 — Biology in Human Welfare

Human health, diseases, immunity, microbes in human welfare, drugs and alcohol.

Unit 4 — Biotechnology

Principles, processes, applications in medicine and agriculture.

Unit 5 — Ecology

Organisms and populations, ecosystem, biodiversity, environmental issues.

GROUP P — MATHEMATICS (Class 12 Level) — Section 2 Option 2

Unit 1 — Relations and Functions

Types of relations and functions, inverse trigonometric functions.

Unit 2 — Algebra

Matrices, determinants, properties and applications.

Unit 3 — Calculus

Continuity, differentiability, derivatives, integrals, differential equations, area under curves.

Unit 4 — Vectors and 3D Geometry

Vector algebra, lines, planes in 3D space.

Unit 5 — Linear Programming

Formulation, graphical method, types of solutions.

Unit 6 — Probability

Conditional probability, Bayes' theorem, probability distributions.

GROUP A — MATHEMATICS (Class 10 Level)

Same topics as Group E Mathematics above — 13 units from Real Numbers to Probability.

GROUP A — PHYSICS (Class 10 Level)

Same topics as Group E Physics above — 5 units.

GROUP A — CHEMISTRY (Class 10 Level)

Same topics as Group E Chemistry above — 5 units.

GROUP A — GENERAL ENGINEERING (Diploma / ITI Level)

Basic Electrical Engineering

Circuits, Ohm's law, series and parallel connections, AC/DC fundamentals, power and energy.

Basic Electronics

Diodes, transistors, logic gates, basic electronic components.

Basic Mechanical Engineering

Simple machines, force, stress, strain, basics of workshop technology.



UKExamAlert.in — Uttarakhand's dedicated source for government exam notifications, admit cards, results, syllabus and exam calendars

For latest updates, admit cards, results and notifications visit:

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