



ADHYAYANAM

Excellence in Teacher Recruitment Coaching

UP TGT SCIENCE

(Subject Code — 05)

Complete Syllabus • Structured Study Modules • Previous-Year Question-Paper Pattern Analysis

2026 BATCH | RECORDED VIDEO LECTURES + LIVE STREAM CLASSES

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EXAMINATION SCHEME

The table below summarises the current UP TGT written-examination pattern that this course is mapped against. Candidates preparing for the Science paper should treat the Concerned Subject section as the highest-priority area of study.

Conducting Body	UPESSC (formerly UPSESSB) — Uttar Pradesh Education Service Selection Commission
Exam Mode	Offline, Pen & Paper (OMR based), Objective (MCQ) type
Total Questions	120 Multiple Choice Questions (90 subject +30 GS)
Marks per Question	3 marks each — Total 360 marks
Negative Marking	negative marking is introduced now
Duration	2 Hours
Paper Sections	GS and Concerned Subject (Science)
Weightage Focus	The Concerned Subject (Science) carries the single largest share of the paper — this is where preparation time should be concentrated

ABOUT THIS STUDY MODULE

This document compiles the official UP TGT Science syllabus (Subject Code 05) into a structured, teachable module — organised exactly the way the Adhyayanam faculty team delivers it through recorded video lectures and live stream classes. Each topic has been broken down into manageable units, mapped to an estimated question-paper weightage derived from an analysis of previous years' papers, and paired with a video-lecture count so that students can plan their preparation timeline with precision.

The syllabus is divided into two sections as prescribed: Section A – Physics and Section B – Chemistry. Detailed module-wise breakdowns for both sections follow on the next pages.

SECTION A — PHYSICS | MODULE-WISE SYLLABUS

Six modules covering complete Physics as per the prescribed UP TGT Science syllabus.

No.	Topic	Key Sub-Topics Covered	Videos
P-1	General Physics (Mechanics)	Units & Dimensions, Vectors & Scalars, Gradient/Divergence/Curl, Gauss & Stokes theorem, Motion & Laws of Motion, Kinetic/Potential energy, Conservation of Energy & Momentum, Rotational motion, Gravitation & Kepler's laws, Simple/Compound	22



No.	Topic	Key Sub-Topics Covered	Videos
		pendulum, Moment of Inertia, Viscosity & Bernoulli's theorem, Surface tension, Elasticity, Theory of Relativity	
P-2	Heat	Temperature scales, Thermal expansion, Conduction/Radiation, Black body radiation, Wien's & Planck's law, Newton's law of cooling, Thermodynamics (I & II law), Carnot engine, Entropy, Maxwell's relations, Joule-Thomson effect, Clausius-Clapeyron equation	14
P-3	Waves & Oscillations	SHM, Progressive & Stationary waves, Phase/Group velocity, Damped & Forced oscillations, Resonance, Beats, Lissajous figures, Doppler effect	10
P-4	Optics	Mirrors & Lenses, Refractive index, Eyepieces, Chromatic aberration, Human eye defects, Interference, Diffraction, Polarization, Newton's rings, Resolving power, Zone plate, Gratings, Double refraction, Lasers	16
P-5	Electricity & Magnetism	Cells & EMF, Resistances/Capacitors, Drift velocity, Wheatstone bridge, Electric field & potential, Gauss law, Biot-Savart & Ampere's law, EM Induction, Faraday's & Lenz's law, AC circuits (LCR), Magnetism, Maxwell's equations, EM waves	20
P-6	Modern Physics	Atomic models (Bohr, Sommerfeld), Pauli's exclusion principle, Photoelectric & Compton effect, Zeeman/Raman effect, de Broglie waves, Uncertainty principle, Schrodinger equation, Radioactivity, Semiconductors, PN junction, Transistors, Logic gates & Boolean algebra	18

Section A Total: 6 Modules | 100 Recorded Video Lectures

SECTION B — CHEMISTRY | MODULE-WISE SYLLABUS

Nine modules covering complete Chemistry as per the prescribed UP TGT Science syllabus.

No.	Topic	Key Sub-Topics Covered	Videos
C-1	Matter & Laws of Chemical Combination	Nature & types of matter, Elements/Compounds/Mixtures, Law of constant/multiple/reciprocal proportions, Gay-Lussac's law, Mitscherlich's law of isomorphism	8
C-2	Structure of Matter & Atomic Structure	Dalton's atomic theory, Discovery of electron/proton/neutron, Rutherford's experiment, Atomic models, Quantum numbers, de Broglie equation, Heisenberg principle, s/p/d orbital shapes, Aufbau, Hund's & Pauli's rules	14



No.	Topic	Key Sub-Topics Covered	Videos
C-3	Radioactivity	Discovery & characteristics of radioactive rays, Half life & average life, Laws of radioactive decay, Nuclear fission & fusion, Isotopes/Isobars/Isoelectronic species	8
C-4	Chemical Bonding	Valency, Octet rule & exceptions, Ionic/Covalent/Coordinate bonds, Fajans' rule, Inert pair effect, Valence bond theory, Hybridization (sp, sp ² , sp ³)	12
C-5	Chemical Reactions & Types	Symbols/Ions/Formulas, Chemical equations, Physical vs chemical change, Displacement/Addition/Decomposition/Double decomposition, Exothermic/Endothermic/Catalysed reactions	8
C-6	Electrochemical Cells	Voltaic cell mechanism, Dry cell, Lead storage battery, Reversible cell, Electrode potential, Nernst equation & applications	8
C-7	Periodic Classification of Elements	Mendeleeff's table (merits/demerits), Modern periodic table, Periodic properties (atomic/ionic radii, IE, EA, EN), s & p block properties, 3d block (transition) elements	12
C-8	General Organic Chemistry	Inductive/Electromeric/Mesomeric effects, Hyperconjugation, Resonance, Electrophiles & Nucleophiles, Free radicals/Carbocations/Carbanions, H-bonding, Nomenclature	14
C-9	Isomerism & Organic Compounds	Structural & Stereoisomerism, Reaction mechanisms (substitution/addition/neutralization), Alkanes/Alkenes/Alkynes, Alkyl halides, Ketones & acid derivatives, Benzene	16

Section B Total: 9 Modules | 100 Recorded Video Lectures

PREVIOUS-YEAR QUESTION-PAPER PATTERN — WEIGHTAGE ANALYSIS

Based on Adhyayanam faculty's analysis of previous years' UP TGT Science papers, the relative emphasis given to each topic within Physics and Chemistry is summarised below. These figures are indicative planning estimates — used internally to sequence the video curriculum and mock-test difficulty — and should be read alongside the official syllabus, not as a substitute for it.

Section A — Physics

Topic	Relative Weightage	Approx.
General Physics (Mechanics)		16%



Topic	Relative Weightage	Approx.
Heat		10%
Waves & Oscillations		7%
Optics		11%
Electricity & Magnetism		14%
Modern Physics		12%

Section B — Chemistry

Topic	Relative Weightage	Approx.
Matter & Laws of Chemical Combination		4%
Structure of Matter & Atomic Structure		8%
Radioactivity		5%
Chemical Bonding		8%
Chemical Reactions & Types		5%
Electrochemical Cells		5%
Periodic Classification of Elements		8%
General Organic Chemistry		8%
Isomerism & Organic Compounds		9%

High-priority zones (highest bars above) receive proportionally more recorded lectures, extra practice sheets and dedicated live doubt-clearing sessions in the Adhyayanam study plan.

STUDY MODULE OVERVIEW

The complete UP TGT Science course is delivered as a blend of self-paced recorded lectures and scheduled live classes, so that working candidates and full-time aspirants can both follow the same structured timeline.

200+ RECORDED LECTURES	VIDEO	60+ LIVE STREAM CLASSES	15 SYLLABUS MODULES
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20 FULL-LENGTH MOCK TESTS	500+ PRACTICE MCQs	Weekly LIVE DOUBT SESSIONS
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What the Course Includes

- Topic-wise recorded video lectures (watch anytime, unlimited replays for course validity)
- Live interactive stream classes with faculty, held on a weekly timetable
- Printable / downloadable module notes for every topic listed in this syllabus
- Section-wise and full-length mock tests modelled on the previous-year paper pattern
- Weekly live doubt-clearing sessions
- Performance tracking dashboard and topic-wise scorecards
- Dedicated WhatsApp / Telegram support group for announcements and quick queries

FEE STRUCTURE

Choose the plan that fits your preparation style. EMI options are available on all plans; scholarship discounts apply for early enrolment.

Course Plan	Access Duration /	What's Included	Fee (₹)
Recorded Lecture Course	12 months validity	All recorded videos, notes, practice MCQs	₹4,999
Live + Recorded Combo	12 months validity	Live classes + recorded videos + notes + mock tests + doubt sessions	₹7,999
Complete TGT Science Program	Till exam + test series	Everything above + full-length test series + 1:1 mentorship + performance review	₹9,999

** Fees are indicative and subject to change. Please confirm current fees, active offers and EMI terms directly with the Adhyayanam admissions team before enrolling.*

ENROLL TODAY

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