



Learn Physics in Right Way

CUET(PG) Geo-Physics Syllabus

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Be Part of Disciplined Learning

Syllabus (SCQP15)**PHYSICS:****• Mechanics and wave Motion: -**

Gallilean invariance, Inertial, noninertial and accelerated frame. Principle of equivalence, Various forces and energy considerations in motions of planets and satellites, conservation of linear momentum, variable mass, Moment of Inertia, Kinetic energy, Radius of gyration, Conservation of Angular momentum, Beats, Lissajous figures LCR circuits, Resonance, Fourier series.

• Electromagnetic Theory and Electronics: -

Maxwell's equations, Displacement current, travelling waves, EM Fields in coaxial cable, Poynting vector, Propagation of e.m. waves. Semiconductors, p-n junction, transistor, Rectifiers, Filters, Common Emitter voltage amplifier.

• Optics: -

Newton's rings, Michelson's interferometer, coherence, Laser, Fresnel and Fraunhofer diffraction, and diffraction patterns, Polarisation, Brewster's Law, Optic axis, Nicol Prism, Huygen's theory of double diffraction.

• Thermodynamics and statistical Mechanics: -

Entropy, Reversible and irreversible process, S-T diagram, Enthalpy, Helmholtz and Gibbs functions, Maxwell's and T-dS equations, Energy and Heat capacity equations, Clausius-Clapeyron equations, specific heat, Thermodynamics, Black body radiations, Laws of radiation, Temperature of the Sun, Planck's radiation formula, Photo-electric effect, Compton effect, Raman Effect, Duality, Michelson-Morley experiment.

MATHEMATICS:**Algebra:**

- Partial fractions, inequalities, Theory of equations, algebra of matrices, properties of determinates and its application to solve linear simultaneous equations

Trigonometry:

- De Moivre's theorem, logarithms of complex quantities and expansion of functions.

Calculus:

- Successive differentiation, asymptotes, curve tracing, curvature, maxima and minima, partial differentiations in determinate forms, mean value theorems, integration and reduction formulae and evaluation of area. Volume, surface and lengths.

Geometry:

- Hyperbola in rectangular coordinates, polar equation of a conic, general equation of second degree, confocal and system of conics, straight lines, plane, sphere, cone, cylinder and central conicoids in three dimensions.

Vectors:

- Divergence, gradient and curl of vectors, Gauss, Stokes and Green's theorems with their applications,

Differential equations:

- Linear differential equations with constant coefficients, orthogonal trajectory, simple non linear differential equations, Integral equations and solution of linear differential equations using Laplace transform.

Mechanics:

- Forces in two dimensions, Virtual work, catenary, Center of gravity, friction, S H M, Projectiles, constrained motion, moments and product of inertia, equation of motion of a rigid body, D'Alembert's principle, compound pendulum, conservation of energy and momentum, centre of pressure and laws of floatation



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Exam Instructions

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TIME: 1.5 HOURS**MAXIMUM MARKS: 300****Mode of Exam: Online**

The CUET PG Geo-Physics exam features a single-section format requiring candidates to attempt exactly 75 domain-specific Multiple-Choice Questions (MCQs) in 90 minutes. The total maximum score is 300 marks.

The exam includes negative marking, with +4 awarded for a correct answer and -1 deducted for every incorrect response

MARKING SCHEME

- i) Each question carries 04 (four) marks.
- ii) For each correct response, candidate will get 04 (four) marks.
- iii) For each incorrect response, 01 (one) mark will be deducted from the total score.
- iv) Un-answered/un-attempted response will be given no marks.
- v) To answer a question, the candidate needs to choose one option as correct option.
- vi) However, after the process of Challenges of the Answer Key, in case there are multiple correct options or change in key, only those candidates who have attempted it correctly as per the revised Final Answer Key will be awarded marks.
- vii) In case a Question is dropped due to some technical error, full marks shall be given to all the candidates irrespective of the fact who have attempted it or not.