

## TEST PATTERN

- 1. <u>Topic Wise Test (TWT)</u>:- There are 70 topic wise test and time duration of each test is 1:00 Hour.
- 2. **Full Length Test (FLT)**:-These full length tests are as per GATE Exam pattern. There are 65 questions in each. Out of 65 questions, students have to attempt 65 questions. Total time duration is 03:00 Hour. Total number of test is **five**.
- 3. Student can attempt more than 1650+ number of questions during this test series.

#### **Topic Wise Test (TWT) Schedule**

01 Mathematical Physics			
Status	Name of Test	Topics	
	TWT-01	Vector Analysis	
	TWT-02	Dirac Delta Function	
	TWT-03	Ordinary Differential Equation	
Released	TWT-04	Linear Algebra and Matrices	
Released	TWT-05	Fourier Series	
	TWT-06	Complex Number and Functions	
	TWT-07	Complex Integration / Contour Integration	
	TWT-08	Fourier Transform and Laplace Transform	
	TWT-09	Special functions-Hermite, Bessel, Laguerre and Legendre functions	

02 Classical Mechanics			
Status	Status Name of Test Topics		
	TWT-01	Lagrangian Formalism	
	TWT-02	Small Oscillation, Phase Curve and Stability Analysis	
Released	TWT-03	Central Force	
Keleaseu	TWT-04	Hamiltonian Formalism	
	TWT-05	Poisson Bracket, generating function and canonical transformation	
	TWT-06	Rotational Dynamics	
	TWT-07 Special Theory of Relativity		

03 Electromagnetic Theory				
Status	Name of Test	Topics		
	TWT-01	Coulomb's Law, Gauss Law, Electrostatic Potential, Poisson's & Laplaces		
		Equations, Electrostatic Energy and Properties of Conductor		
	TWT-02	Electric Dipole, Polarisation, Electrostatic Boundary Conditions,		
		Multipole Expansion and Image Problem		
Released	TWT-03	Motion of Charged Particles in Electric and Magnetic Fields, Magnetic		
Keleaseu		Force Experienced by Current Elements, Biot Savart Law and Amperes		
		Law		
	TWT-04	Magnetic Vector Potential, Magnetic Dipole, Magnetisation,		
		Magnetostatic Boundary Conditions		
	TWT-05	Elecromagnetic Induction, Maxwell Equations		

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# Physics by **fiziks**

TWT-06	E.M. Wave in Free Space, Dielectrics, Conductors, Reflection and
	Transmission
TWT-07	Rectangular Wave Guide, Potential Formulation for Time Varying Fields,
	and Radiation from Moving Charges

04 Quantum Mechanics			
Status	Name of Test	Topics	
TWT-01 Wave Particle Duality & Uncertainty Principle		Wave Particle Duality & Uncertainty Principle	
	TWT-02	Tools of Quantum Mechanics Part - 1	
Released TWT-03 Tools of Quantum Mechanics Part -2		Tools of Quantum Mechanics Part -2	
	TWT-04	Postulates of Quantum Mechanics	
	TWT-05	Free Particle, Potential barriers and Potential Well	
	TWT-06	1D Harmonic Oscillator, Dirac Function and 2D, 3D in Cartesian	
		Coordinate	
	TWT-07	Angular Momentum, Hydrogen Atom and Spin	
	TWT-08	Approximation Method	
	TWT-09	Scattering, Identical particles and Relativistic Quantum Mechanics	

05 Thermodynamic and Statistical Physics					
Status	Name of Test	Topics			
	TWT-01	Kinetic Theory of Gases and Maxwell Boltzmann Distribution Law			
	TWT-02	Transport Phenomenon, Real Gases, First and Second Law			
	TWT-03	Entropy, Thermodynamic Potentials, Maxwell Relations			
Released	TWT-04	Blackbody Radiation and Elementary Statistical Mechanics			
	TWT-05	Random Walk Problem and Micro Canonical Ensemble			
	TWT-06	Canonical Ensemble			
	TWT-07	Quantum Statistics			
	TWT-08 Phase Transition and Grand Canonical Ensemble				

06 Electronics and Experimental Methods			
Status	Name of Test Topics		
	TWT-01	Network Analysis	
TWT-02Semiconductor PhysicsTWT-03PN Junction Diode and their Application		Semiconductor Physics	
		PN Junction Diode and their Applications	
Released	TWT-04	Bipolar Junction Transistors, DC and AC Analysis	
	TWT-05	Operational Amplifier	
	TWT-06	Digital Electronics Part-1	
	TWT-07	Digital Electronics Part-2	

07 Atomic & Molecular Physics				
Status	s Name of Test Topics			
	TWT-01	Bohr's Theory and Sommerfeld Model		
	TWT-02	Fine Structure		
	TWT-03	L-S & J-J Coupling		
Released	TWT-04	Zeeman Effect		
Keleaseu	TWT-05	Paschen Back Effect & Hyperfine Structure		
	TWT-06	Rotational Spectroscopy		
	TWT-07	Vibrational and Raman Spectra		
	TWT-08	Laser		

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08 Solid State Physics				
Status	Name of Test	Topics		
	TWT-01	Crystal Structure		
	TWT-02	XRD and Reciprocal Lattices		
	TWT-03	Lattice Vibrations		
Released	TWT-04	Specific Heat of Solid		
	TWT-05	Free Electron Theory		
	TWT-06	Band Theory of Solid		
	TWT-07	Superconductor		

09 Nuclear and Particle Physics					
Status	Name of Test	Name of Test Topics			
	TWT-01	General properties of nuclei			
	TWT-02	Liquid Drop Model			
	TWT-03	Shell Models and Collective Models			
Released	TWT-04	Nuclear Forces			
Keleaseu	TWT-05	Radioactivity			
	TWT-06	Alpha beta and gamma decay			
	TWT-07	Nuclear Reactions, Fission and Fusion			
	TWT-08	Particle Physics			

#### Full Length Test (FLT) Pattern And Schedule

Total Number of Questions: 65 Questions

General Aptitude (GA) 5 questions of 1 mark, 5 questions of 2 marks: 10 Questions

Physics (PH) 25 questions of 1 mark, 30 questions of 2 marks: 55 Questions

Status	Name of Test	Syllabus
	FLT - 01	Complete Syllabus of GATE
	FLT - 02	Complete Syllabus of GATE
Released	FLT – 03	Complete Syllabus of GATE
	FLT - 04	Complete Syllabus of GATE
	FLT - 05	Complete Syllabus of GATE

#### **Fee Structure of Test Series**

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