ACE Engineering Academy
Leading Institute for ESE/GATE/PSUs
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GATE-2025

Online Test Series

Electrical Engineering Schedule

No.of Tests : 56 + 56 *free* practice tests of GATE-2024 Online Test Series		
	GATE - 2025 Test Series	**Practice Tests GATE - 2024 OTS**
Topic wise Tests	**26**	**26**
Grand Tests (Subject Wise Tests + Multi-Subject Wise Tests)	**18**	**18**
Full Length Mock Tests	**12**	**12**
Total Tests - 112		

Note:

★ The Syllabus considered as per Previoues year Notification of GATE. ACE Engineering Academy does not take any responsibility for deviations in syllabus in the final exam.

★ The Dates of Tests may Change according to the GATE-2025 Exam schedule.

★ Tests will be activated at 06:00 pm on the scheduled day.

★ All tests will be active till GATE-2025 Exam.

Topic wise Tests

(No.of Questions: 15, Time duration: 42 Minutes and Marks: 25 M)

Test No	Name of the Test	Date of Activation
Test-01	**Engineering Mathematics-1:** Linear Algebra: Matrix Algebra, Systems of linear equations, Eigenvalues, Eigenvectors. Calculus: Mean value theorems, Theorems of integral calculus, Evaluation of definite and improper integrals, Partial Derivatives, Maxima and minima, Multiple integrals, Fourier series, Vector identities, Directional derivatives, Line integral, Surface integral, Volume integral, Stokes's theorem, Gauss's theorem, Divergence theorem, Green's theorem.	15-04-2024
Test-02	**Engineering Mathematics-2:** Differential equations: First order equations (linear and nonlinear), Higher order linear differential equations with constant coefficients, Method of variation of parameters, Cauchy's equation, Euler's equation, Initial and boundary value problems, Partial Differential Equations, Method of separation of variables. Complex variables: Analytic functions, Cauchy's integral theorem, Cauchy's integral formula, Taylor series, Laurent series, Residue theorem, Solution integrals. Probability and Statistics: Sampling theorems, Conditional probability, Mean, Median, Mode, Standard Deviation, Random variables, Discrete and Continuous distributions, Poisson distribution, Normal distribution, Binomial distribution, Correlation analysis, Regression analysis.	
Test-03	**Control systems-1:** Feedback principle, transfer function, Block diagrams and Signal flow graphs, Transient and Steady-state analysis of linear time invariant systems, Stability analysis using Routh-Hurwitz and Root loci.	22-04-2024
Test-04	**Control systems-2:** Mathematical modeling and representation of systems, and Nyquist criteria, Bode plots, Lag, Lead and Lead-Lag compensators; P, PI and PID controllers; State space model, solutions of State equations of LTI systems.	
Test-05	**Signals and Systems-1:** Representation of continuous and discrete-time signals, Shifting and scaling properties, Linear Time Invariant and Causal systems, Fourier series representation of continuous periodic signals, R.M.S. value, average value calculation for any general periodic waveform. Applications of Fourier Transform for continuous signals, Sampling theorem.	
Test-06	**Signals and Systems-2:** Applications of Laplace Transform and z-Transform. Applications of Fourier Transform for discrete time signals(DTFT), Fourier series representation of discrete time periodic signals(DTFS),	

Test No	Name of the Test	Date of Activation
Test-07	**Electrical Circuits-1:** Network elements: ideal voltage and current sources, dependent sources, R, L, C, M elements; Network solution methods: KCL, KVL, Node and Mesh analysis; Network Theorems: Thevenin's, Norton's, Superposition and Maximum Power Transfer theorem;	29-04-2024
Test-08	**Electrical Circuits-2:** Transient response of dc and ac networks, sinusoidal steady-state analysis, resonance, two port networks, balanced three phase circuits, star-delta transformation, complex power and power factor in ac circuits.	
Test-09	**Electrical Machines-1:** Single phase transformer: equivalent circuit, phasor diagram, open circuit and short circuit tests, regulation and efficiency; Three-phase transformers: connections, vector groups, parallel operation; Auto-transformer,	
Test-10	**Electrical Machines-2:** Three-phase induction machines: principle of operation, types, performance, torque-speed characteristics, no-load and blocked-rotor tests, equivalent circuit, starting and speed control; Operating principle of single-phase induction motors;	
Test-11	**Electrical Machines-3:** Electromechanical energy conversion principles; DC machines: separately excited, series and shunt, motoring and generating mode of operation and their characteristics, speed control of dc motors.	06-05-2024
Test-12	**Electrical Machines-4:** Synchronous machines: cylindrical and salient pole machines, performance and characteristics, regulation and parallel operation of generators, starting of synchronous motors; Types of losses and efficiency calculations of electric machines.	
Test-13	**Analog and Digital Electronics-1:** Simple diode circuits: clipping, clamping, rectifiers; Amplifiers: biasing, equivalent circuit and frequency response; Oscillators and feedback amplifiers; operational amplifiers: characteristics and applications; single stage active filters, Active Filters: Sallen Key, Butterwoth, VCOs and timers.	13-05-2024
Test-14	**Analog and Digital Electronics-2:** Combinational and Sequential logic circuits, Multiplexer, Demultiplexer, Schmitt trigger, Sample and hold circuits, A/D and D/A converters.	

Test No	Name of the Test	Date of Activation
Test-15	**Power Systems-1:** Basic concepts of electrical Power generation, Per-unit quantities, Bus admittance matrix, Gauss-Seidel and Newton-Raphson load flow methods, Symmetrical components, Symmetrical and unsymmetrical fault analysis.System stability concepts, Equal area criterion.	20-05-2024
Test-16	**Power Systems-2:** Models and performance of transmission lines and cables, Series and shunt compensation, Power factor correction. Voltage control. Electric field distribution and insulators, Distribution systems, ac and dc transmission concepts.	
Test-17	**Power Systems:3** Frequency Control, Economic Load Dispatch (with and without considering transmission losses)Principles of over-current, differential, directional and distance protection; Circuit breakers	
Test-18	**Power Electronics-1:** Static V-I characteristics and firing/gating circuits for Thyristor, MOSFET, IGBT; Single and three-phase configuration of uncontrolled rectifiers; Voltage and Current commutated Thyristor based converters;Magnitude and Phase of line current harmonics for uncontrolled and thyristor based converters; Power factor and Distortion Factor of ac to dc converters;	27-05-2024
Test-19	**Power Electronics-2:** DC to DC conversion: Buck, Boost and Buck-Boost converters; Bidirectional ac to dc voltage source converters, Single phase and three phase inverters, Sinusoidal pulse width modulation.	
Test-20	**Measurements-1:** Bridges and Potentiometers, Measurement of voltage, current, power, energy and power factor; Instrument transformers,Error analysis.	03-06-2024
Test-21	**Measurements-2:** Digital voltmeters and multimeters, Phase, Time and Frequency measurement; Oscilloscopes	
Test-22	**Electromagnetic Fields-1:** Coulomb's Law, Electric Field Intensity, Electric Flux Density, Gauss's Law, Divergence, Electric field and potential due to point, line, plane and spherical charge distributions, Effect of dielectric medium, Capacitance of simple configurations	
Test-23	**Electromagnetic Fields-2:** Biot-Savart’s law, Ampere’s law, Curl, Faraday’s law, Lorentz force, Inductance, Magnetomotive force, Reluctance, Magnetic circuits,Self and Mutual inductance of simple configurations.	
Test-24	**Verbal Ability:** Basic English grammar: tenses, articles, adjectives, prepositions, conjunctions, verb-noun agreement, and other parts of speech. Basic vocabulary: words, idioms, and phrases in context. Reading and comprehension. Narrative sequencing.	10-06-2024

Test No	Name of the Test	Date of Activation
Test-25	**Quantitative Aptitude:** Data interpretation: data graphs (bar graphs, pie charts, and other graphs representing data), 2- and 3-dimensional plots, maps, and tables. Numerical computation and estimation: ratios, percentages, powers, exponents and logarithms, permutations and combinations, and series Mensuration and geometry & Elementary statistics and probability.	10-06-2024
Test-26	**Analytical Aptitude:** Logic: deduction and induction, Analogy, Numerical relations and reasoning **Spatial Aptitude:** Transformation of shapes: translation, rotation, scaling, mirroring, assembling, and grouping Paper folding, cutting, and patterns in 2 and 3 dimensions	

Subject Wise Grand Tests *(No.of Questions: 30, Time duration: 83 Minutes and Marks: 50 M)*		
Test-27	Engineering Mathematics	24-06-2024
Test-28	Control systems	
Test-29	Signals & Systems	01-07-2024
Test-30	Digital Electronics	
Test-31	Electrical Circuits	08-07-2024
Test-32	Electrical Machines	
Test-33	Analog Electronics	15-07-2024
Test-34	Power Systems	
Test-35	Measurements	22-07-2024
Test-36	Electromagnetic Fields	
Test-37	Power Electronics	29-07-2024
Test-38	General Aptitude	

Full Length Mock Test - 1st Series *(No.of Questions: 65, Time duration: 180 Minutes and Marks: 100 M)*		
Test-39	Full Length Mock Test-1	12-08-2024
Test-40	Full Length Mock Test-2	19-08-2024
Test-41	Full Length Mock Test-3	26-08-2024
Test-42	Full Length Mock Test-4	02-09-2024
Test-43	Full Length Mock Test-5	09-09-2024
Test-44	Full Length Mock Test-6	16-09-2024

Test No	Name of the Test	Date of Activation
Multi-Subject Wise Grand Tests *(No.of Questions: 30, Time duration: 83 Minutes and Marks: 50 M)*		
Test-45	Electrical Circuits & Electromagnetic Fields	30-09-2024
Test-46	Control systems & Signals & Systems	
Test-47	Power Electronics & AnalogElectronics	07-10-2024
Test-48	Electrical Machines & Digital Electronics	
Test-49	Measurements & Power Systems	14-10-2024
Test-50	Engineering Mathematics & General Aptitude	

Full Length Mock Test - 2nd Series *(No.of Questions: 65, Time duration: 180 Minutes and Marks: 100 M)*		
Test-51	Full Length Mock Test-7	04-11-2024
Test-52	Full Length Mock Test-8	11-11-2024
Test-53	Full Length Mock Test-9	18-11-2024
Test-54	Full Length Mock Test-10	25-11-2024
Test-55	Full Length Mock Test-11	30-12-2024
Test-56	Full Length Mock Test-12	06-01-2025

Free Practice Tests

Topic wise Tests

(No.of Questions: 15, Time duration: 42 Minutes and Marks: 25 M)

Test No	Name of the Test	Date of Activation
Test-01	**Engineering Mathematics-1:** Linear Algebra: Matrix Algebra, Systems of linear equations, Eigenvalues, Eigenvectors. Calculus: Mean value theorems, Theorems of integral calculus, Evaluation of definite and improper integrals, Partial Derivatives, Maxima and minima, Multiple integrals, Fourier series, Vector identities, Directional derivatives, Line integral, Surface integral, Volume integral, Stokes's theorem, Gauss's theorem, Divergence theorem, Green's theorem.	**25-03-2024**
Test-02	**Engineering Mathematics-2:** Differential equations: First order equations (linear and nonlinear), Higher order linear differential equations with constant coefficients, Method of variation of parameters, Cauchy's equation, Euler's equation, Initial and boundary value problems, Partial Differential Equations, Method of separation of variables. Complex variables: Analytic functions, Cauchy's integral theorem, Cauchy's integral formula, Taylor series, Laurent series, Residue theorem, Solution integrals. Probability and Statistics: Sampling theorems, Conditional probability, Mean, Median, Mode, Standard Deviation, Random variables, Discrete and Continuous distributions, Poisson distribution, Normal distribution, Binomial distribution, Correlation analysis, Regression analysis.	
Test-03	**Control systems-1:** Feedback principle, transfer function, Block diagrams and Signal flow graphs, Transient and Steady-state analysis of linear time invariant systems, Stability analysis using Routh-Hurwitz and Root loci.	
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Test-06	**Signals and Systems-2:** Applications of Laplace Transform and z-Transform. Applications of Fourier Transform for discrete time signals(DTFT), Fourier series representation of discrete time periodic signals(DTFS),	

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Test-11	**Electrical Machines-3:** Electromechanical energy conversion principles; DC machines: separately excited, series and shunt, motoring and generating mode of operation and their characteristics, speed control of dc motors.	**25-03-2024**
Test-12	**Electrical Machines-4:** Synchronous machines: cylindrical and salient pole machines, performance and characteristics, regulation and parallel operation of generators, starting of synchronous motors; Types of losses and efficiency calculations of electric machines.	
Test-13	**Analog and Digital Electronics-1:** Simple diode circuits: clipping, clamping, rectifiers; Amplifiers: biasing, equivalent circuit and frequency response; Oscillators and feedback amplifiers; operational amplifiers: characteristics and applications; single stage active filters, Active Filters: Sallen Key, Butterwoth, VCOs and timers.	
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Test-19	**Power Electronics-2:** DC to DC conversion: Buck, Boost and Buck-Boost converters; Bidirectional ac to dc voltage source converters, Single phase and three phase inverters, Sinusoidal pulse width modulation.	**25-03-2024**
Test-20	**Measurements-1:** Bridges and Potentiometers, Measurement of voltage, current, power, energy and power factor; Instrument transformers,Error analysis.	
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Test-26	**Analytical Aptitude:** Logic: deduction and induction, Analogy, Numerical relations and reasoning **Spatial Aptitude:** Transformation of shapes: translation, rotation, scaling, mirroring, assembling, and grouping Paper folding, cutting, and patterns in 2 and 3 dimensions	

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Test-34	Power Systems	
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Test-36	Electromagnetic Fields	
Test-37	Power Electronics	
Test-38	General Aptitude	

Multi-Subject Wise Grand Tests *(No.of Questions: 30, Time duration: 83 Minutes and Marks: 50 M)*		
Test-39	Electrical Circuits & Electromagnetic Fields	**01-04-2024**
Test-40	Control systems & Signals & Systems	
Test-41	Power Electronics & AnalogElectronics	
Test-42	Electrical Machines & Digital Electronics	
Test-43	Measurements & Power Systems	
Test-44	Engineering Mathematics & General Aptitude	

Test No	Name of the Test	Date of Activation
Full Length Mock Tests *(No.of Questions: 65, Time duration: 180 Minutes and Marks: 100 M)*		
Test-45	Full Length Mock Test-1	**08-04-2024**
Test-46	Full Length Mock Test-2	
Test-47	Full Length Mock Test-3	
Test-48	Full Length Mock Test-4	
Test-49	Full Length Mock Test-5	
Test-50	Full Length Mock Test-6	
Test-51	Full Length Mock Test-7	
Test-52	Full Length Mock Test-8	
Test-53	Full Length Mock Test-9	
Test-54	Full Length Mock Test-10	
Test-55	Full Length Mock Test-11	
Test-56	Full Length Mock Test-12	