ACE® Engineering Academy
Leading Institute for ESE/GATE/PSUs
Since 1995

GATE-2022

Online Test Series

Electrical Engineering - Schedule

No.of Tests : 68 + *55* *free* practice tests of GATE-2021 Online Test Series

	GATE - 2022 Test Series	Practice Tests GATE - 2021 Test Series
Topic wise Tests	26	25
Grand Tests (Subject Wise Tests + Multi-Subject Wise Tests)	30	18
Full Length Mock Tests	12	12
Total Tests - 123		

All tests will be Active upto GATE -2022 Examination.

Topic wise Tests		
Topic wise Tests *(No.of Questions: 15, Time duration: 45 Minutes and Marks: 25 M)*		
Test No	**Name of the Topic**	**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. 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.	03-05-2021
Test-02	**Engineering Mathematics-2:** 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, Routh-Hurwitz, Root loci and Stability analysis	
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, State transition matrix.	
Test-05	**Signals and Systems-1:** Representation of continuous and discrete-time signals, Shifting and scaling operations, Linear Time Invariant and Causal systems, Fourier series representation of continuous and discrete periodic signals, R.M.S. value, average value calculation for any general periodic waveform. Applications of Fourier Transform continuous and discrete time signals.	10-05-2021
Test-06	**Signals and Systems-2:** Sampling theorem, Applications of Laplace Transform and z-Transform.	
Test-07	**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-08	**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-09	**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.	17-05-2021
Test-10	**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-11	**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;	
Test-12	**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-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.	24-05-2021
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-15	**Power Systems-1:** Power generation concepts, Per-unit quantities, Bus admittance matrix, Gauss-Seidel and Newton-Raphson load flow methods, Voltage and Frequency control, Symmetrical components, Symmetrical and unsymmetrical fault analysis.	
Test-16	**Power Systems-2:** System stability concepts, Equal area criterion, Models and performance of transmission lines and cables, Series and shunt compensation, Power factor correction.	
Test-17	**Power Systems:3** Electric field distribution and insulators, Distribution systems, ac and dc transmission concepts,Economic Load Dispatch (with and without considering transmission losses)Principles of over-current, differential, directional and distance protection; Circuit breakers	

Test No	Name of the Topic	Date of Activation
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;	31-05-2021
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.	
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	07-06-2021
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.	
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.	
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 - 1st Series
(No.of Questions: 30, Time duration: 90 Minutes and Marks: 50 M)

Test No	Name of the Subject	Date of Activation
Test-27	Engineering Mathematics	21-06-2021
Test-28	Control systems	
Test-29	Signals & Systems	28-06-2021
Test-30	Digital Electronics	
Test-31	Electrical Circuits	12-07-2021
Test-32	Electrical Machines	
Test-33	Analog Electronics	19-07-2021
Test-34	Power Systems	
Test-35	Measurements	26-07-2021
Test-36	Electromagnetic Fields	
Test-37	Power Electronics	02-08-2021
Test-38	General Aptitude	

Full Length Mock Test - 1st Series
(No.of Questions: 65, Time duration: 180 Minutes and Marks: 100 M)

Test No	Name of the Mock	Date of Activation
Test-39	Full Length Mock Test-1	09-08-2021
Test-40	Full Length Mock Test-2	16-08-2021
Test-41	Full Length Mock Test-3	23-08-2021

Subject Wise Grand Tests - 2nd Series
(No.of Questions: 30, Time duration: 90 Minutes and Marks: 50 M)

Test No	Name of the Subject	Date of Activation
Test-42	Engineering Mathematics	30-08-2021
Test-43	Control systems	
Test-44	Signals & Systems	06-09-2021
Test-45	Digital Electronics	
Test-46	Electrical Circuits	13-09-2021
Test-47	Electrical Machines	
Test-48	Analog Electronics	20-09-2021
Test-49	Power Systems	
Test-50	Measurements	27-09-2021
Test-51	Electromagnetic Fields	
Test-52	Power Electronics	04-10-2021
Test-53	General Aptitude	

Full Length Mock Test - 2nd Series
(No.of Questions: 65, Time duration: 180 Minutes and Marks: 100 M)

Test No	Name of the Mock	Date of Activation
Test-54	Full Length Mock Test-4	18-10-2021
Test-55	Full Length Mock Test-5	25-10-2021
Test-56	Full Length Mock Test-6	01-11-2021

Multi-Subject Wise Grand Tests
(No.of Questions: 30, Time duration: 90 Minutes and Marks: 50 M)

Test No	Name of the subjects	Date of Activation
Test-57	Electrical Circuits & Electromagnetic Fields	15-11-2021
Test-58	Control systems & Signals & Systems	
Test-59	Power Electronics & AnalogElectronics	22-11-2021
Test-60	Electrical Machines & Digital Electronics	
Test-61	Measurements & Power Systems	29-11-2021
Test-62	Engineering Mathematics & General Aptitude	

Full Length Mock Test - 3rd Series
(No.of Questions: 65, Time duration: 180 Minutes and Marks: 100 M)

Test No	Name of the Mock	Date of Activation
Test-63	Full Length Mock Test-7	20-12-2021
Test-64	Full Length Mock Test-8	27-12-2021
Test-65	Full Length Mock Test-9	03-01-2022
Test-66	Full Length Mock Test-10	10-01-2022
Test-67	Full Length Mock Test-11	17-01-2022
Test-68	Full Length Mock Test-12	24-01-2022

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 above Tests may Change according to the GATE-2022 Exam schedule.

Tests will be activated at 02:00 pm on the scheduled day.

Free Practice Tests of GATE-2021 Online Test Series

Topic wise Tests
(No.of Questions: 15, Time duration: 45 Minutes and Marks: 25 M)

Test No	Name of the Topic	Date of Activation
EE_P-01	**Engineering Mathematics-1:** Linear Algebra, Calculus, Differential Equations.	
EE_P-02	**Engineering Mathematics-2:** Complex Variables, Probability and Statistics.	
EE_P-03	**Control systems-1:** Feedback principle, transfer function, Block diagrams and Signal flow graphs, Transient and Steady-state analysis of linear time invariant systems, Routh-Hurwitz, Root loci and Stability analysis	
EE_P-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, State transition matrix.	
EE_P-05	**Signals and Systems-1:** Representation of continuous and discrete-time signals, Shifting and scaling operations, Linear Time Invariant and Causal systems, Fourier series representation of continuous and discrete periodic signals, R.M.S. value, average value calculation for any general periodic waveform. Applications of Fourier Transform continuous and discrete time signals.	
EE_P-06	**Signals and Systems-2:** Sampling theorem, Applications of Laplace Transform and z-Transform.	
EE_P-07	**Analog Electronics-1:** Simple diode circuits: clipping, clamping, rectifiers; Amplifiers: biasing, equivalent circuit and frequency response; **Digital Electronics-1:** Combinational and Sequential logic circuits, Multiplexer, Demultiplexer, Schmitt trigger	
EE_P-08	**Analog Electronics-2:** Oscillators and feedback amplifiers; operational amplifiers: characteristics and applications; single stage active filters, Active Filters: Sallen Key, Butterwoth, VCOs and timers. **Digital Electronics-2:** Sample and hold circuits, A/D and D/A converters.	
EE_P-09	**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;	
EE_P-10	**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.	
EE_P-11	**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,	**15-04-2021**
EE_P-12	**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;	
EE_P-13	**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.	
EE_P-14	**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.	
EE_P-15	**Power Systems-1:** Power generation concepts, Per-unit quantities, Bus admittance matrix, Gauss-Seidel and Newton-Raphson load flow methods, Voltage and Frequency control, Symmetrical components, Symmetrical and unsymmetrical fault analysis.	
EE_P-16	**Power Systems-2:** System stability concepts, Equal area criterion, Models and performance of transmission lines and cables, Series and shunt compensation, Power factor correction.	
EE_P-17	**Power Systems:3** Electric field distribution and insulators, Distribution systems, ac and dc transmission concepts,Economic Load Dispatch (with and without considering transmission losses)Principles of over-current, differential, directional and distance protection; Circuit breakers	
EE_P-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;	
EE_P-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 No	Name of the Topic	Date of Activation
EE_P-20	**Measurements-1:** Bridges and Potentiometers, Measurement of voltage, current, power, energy and power factor; Instrument transformers,Error analysis.	**15-04-2021**
EE_P-21	**Measurements-2:** Digital voltmeters and multimeters, Phase, Time and Frequency measurement; Oscilloscopes	
EE_P-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	
EE_P-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.	
EE_P-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	
EE_P-25	**Numarical Ability:** 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. 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 - 2nd Series
(No.of Questions: 30, Time duration: 90 Minutes and Marks: 50 M)

Test No	Name of the Topic	Date of Activation
EE_P-26	Engineering Mathematics	**20-04-2021**
EE_P-27	Control systems	
EE_P-28	Signals & Systems	
EE_P-29	Digital Electronics	
EE_P-30	Electrical Circuits	
EE_P-31	Electrical Machines	
EE_P-32	Analog Electronics	
EE_P-33	Power Systems	
EE_P-34	Measurements	
EE_P-35	Electromagnetic Fields	
EE_P-36	Power Electronics	
EE_P-37	General Aptitude	

Multi-Subject Wise Grand Tests
(No.of Questions: 30, Time duration: 90 Minutes and Marks: 50 M)

Test No	Name of the Topic	Date of Activation
EE_P-38	Electrical Circuits & Electromagnetic Fields	**20-04-2021**
EE_P-39	Control systems & Signals & Systems	
EE_P-40	Power Electronics & AnalogElectronics	
EE_P-41	Electrical Machines & Digital Electronics	
EE_P-42	Measurements & Power Systems	
EE_P-43	Engineering Mathematics & General Aptitude	

Full Length Mock Test
(No.of Questions: 65, Time duration: 180 Minutes and Marks: 100 M)

Test No	Name of the Topic	Date of Activation
EE_P-44	Full Length Mock Test-1	30-04-2021
EE_P-45	Full Length Mock Test-2	
EE_P-46	Full Length Mock Test-3	
EE_P-47	Full Length Mock Test-4	
EE_P-48	Full Length Mock Test-5	
EE_P-49	Full Length Mock Test-6	
EE_P-50	Full Length Mock Test-7	
EE_P-51	Full Length Mock Test-8	
EE_P-52	Full Length Mock Test-9	
EE_P-53	Full Length Mock Test-10	
EE_P-54	Full Length Mock Test-11	
EE_P-55	Full Length Mock Test-12	