ACE Engineering Academy

Leading Institute for ESE/GATE/PSUs

Since 1995

GATE-2022

Online Test Series

No.of Tests : 64 + *54 free* practice tests of GATE-2021 Online Test Series

	GATE - 2022 Test Series	Practice Tests GATE - 2021 Test Series
Topic wise Tests	23	22
Grand Tests (Subject Wise Tests + Multi-Subject Wise Tests)	29	20
Full Length Mock Tests	12	12
Total Tests - 118		

All tests will be Active upto GATE -2022 Examination.

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: Vector space, basis, linear dependence and independence, matrix algebra, eigenvalues and eigenvectors, rank, solution of linear equations- existence and uniqueness. Calculus**:** Mean value theorems, theorems of integral calculus, evaluation of definite and improper integrals, partial derivatives, maxima and minima, multiple integrals, line, surface and volume integrals, Taylor series. Vector Analysis : Vectors in plane and space, vector operations, gradient, divergence and curl, Gauss's, Green's and Stokes' theorems.	03-05-2021
Test-02	**Engineering Mathematics-2:** Differential Equations: First order equations (linear and nonlinear), higher order linear differential equations, Cauchy's and Euler's equations, methods of solution using variation of parameters, complementary function and particular integral, partial differential equations, variable separable method, initial and boundary value problems. Complex Anaysis: Analytic functions, Cauchy's integral theorem, Cauchy's integral formula, sequences, series, convergence tests, Taylor and Laurent series, residue theorem. Probability and Statistics: Mean, median, mode, standard deviation, combinatorial probability, probability distributions, binomial distribution, Poisson distribution, exponential distribution, normal distribution, joint and conditional probability.	
Test-03	**Control Systems-1:** Basic control system components; Feedback principle; Transfer function; Block diagram representation; Signal flow graph; Transient and steady-state analysis of LTI systems; Routh – Hurwitz stability criteria, root-locus plot.	
Test-04	**Control Systems-2:** Frequency response; Nyquist stability criteria; Bode Plot, Lag, lead and lag-lead compensation; State variable model and solution of state equation of LTI systems.	
Test-05	**Signals and Systems -1:** Introduction to signals, LTI systems: definition and properties, causality, stability, impulse response, convolution. Fourier series and Fourier transform representations. sampling theorem and applications. Frequency response, group delay and phase delay.	10-05-2021
Test-06	**Signals and Systems -2:** Laplace transform, discrete-time Fourier transform (DTFT), DFT, Z-transform, poles and zeros, discrete-time processing of continuous-time signals.	
Test-07	**Digital Circuits-1:** Binary, integer and floating-point numbers, Combinatorial circuits: Boolean algebra, minimization of functions using Boolean identities and Karnaugh map, logic gates and their static CMOS implementations, arithmetic circuits, code converters, multiplexers, decoders.	
Test-08	**Digital Circuits-2:** Sequential circuits: latches and flip-flops, counters, shift-registers, finite state machines, propagation delay, setup and hold time, critical path delay. Data converters: sample and hold circuits, ADCs and DACs.	
Test-09	**Digital Circuits-3:** Semiconductor memories: ROM, SRAM, DRAM Computer organization: Machine instructions and addressing modes, ALU, data-path and control unit, instruction pipelining.	
Test-10	**Networks-1:** Circuit analysis: Node and mesh analysis, superposition, Thevenin's theorem, Norton's theorem, reciprocity, maximum power transfer, wye-delta transformation	17-05-2021
Test-11	**Networks-2:** Sinusoidal steady state analysis: phasors, complex power, Time and frequency domain analysis of linear circuits: RL, RC and RLC circuits, solution of network equations using Laplace transform. Linear 2-port network parameters.	
Test-12	**Electronic Devices-1:** Energy bands in intrinsic and extrinsic silicon; Carrier transport: diffusion current, drift current, mobility and resistivity; Generation and recombination of carriers; Poisson and continuity equations; P-N junction, Zener diode, BJT. Direct and Indiect band-gap semiconductor.	
Test-13	**Electronic Devices-2:** MOS capacitor, MOSFET, LED, photo diode and solar cell.	
Test-14	**Analog Circuits-1:** Diode circuits: clipping, clamping and rectifiers. BJT and MOSFET amplifiers: biasing, ac coupling, small signal analysis, frequency response, Current mirrors.	24-05-2021
Test-15	**Analog Circuits-2:** Op-amp circuits: Amplifiers, summers, differentiators, integrators, active filters, Schmitt triggers and oscillators. Differential amplifiers.	

Test No	Name of the Topic	Date of Activation
Test-16	**Communications-1:** Analog communications: amplitude modulation and demodulation, angle modulation and demodulation, spectra of AM and FM, superheterodyne receivers.	24-05-2021
Test-17	**Communications-2:** Random processes: autocorrelation and power spectral density, properties of white noise, filtering of random signals through LTI systems. Information theory: entropy, mutual information and channel capacity theorem.	
Test-18	**Communications-3:** Digital communications: PCM, DPCM, digital modulation schemes (ASK, PSK, FSK, QAM), bandwidth, inter-symbol interference, MAP, ML detection, matched filter receiver, SNR and BER. Fundamentals of error correction, Hamming codes, CRC.	
Test-19	**Electromagnetics-1:** Maxwell's equations: differential and integral forms and their interpretation, boundary conditions, wave equation, Poynting vector; Plane waves and properties: reflection and refraction, polarization, phase and group velocity, propagation through various media, skin depth.	31-05-2021
Test-20	**Electromagnetics-2:** Transmission lines: equations, characteristic impedance, impedance matching, impedance transformation, S-parameters, Smith chart; Rectangular and circular waveguides, light propagation in optical fibers, dipole and monopole antennas, linear antenna arrays.	
Test-21	**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.	07-06-2021
Test-22	**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-23	**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-24	Engineering Mathematics	21-06-2021
Test-25	Control Systems	
Test-26	Signals and Systems	28-06-2021
Test-27	Digital Circuits	
Test-28	Networks	12-07-2021
Test-29	Electronic Devices	
Test-30	Analog Circuits	19-07-2021
Test-31	Communications	
Test-32	Electromagnetics	26-07-2021
Test-33	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-34	Full Length Mock Test-1	09-08-2021
Test-35	Full Length Mock Test-2	16-08-2021
Test-36	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-37	Engineering Mathematics	30-08-2021
Test-38	Control Systems	
Test-39	Signals and Systems	06-09-2021
Test-40	Digital Circuits	
Test-41	Networks	13-09-2021
Test-42	Electronic Devices	
Test-43	Analog Circuits	20-09-2021
Test-44	Communications	
Test-45	Electromagnetics	27-09-2021
Test-46	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-47	Full Length Mock Test-4	18-10-2021
Test-48	Full Length Mock Test-5	25-10-2021
Test-49	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 Subject	Date of Activation
Test-50	Networks & Electromagnetics	15-11-2021
Test-51	Control Systems & Signals and Systems	
Test-52	Electronic Devices & Analog Circuits	22-11-2021
Test-53	Communications & Digital Circuits	
Test-58	Engineering Mathematics & General Aptitude	29-11-2021
Test-54	Networks & Signals and Systems	03-12-2021
Test-55	Analog Circuits & Digital Circuits	
Test-56	Electromagnetics & Electronic Devices	06-12-2021
Test-57	Communications &Control Systems	

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-59	Full Length Mock Test-7	20-12-2021
Test-60	Full Length Mock Test-8	27-12-2021
Test-61	Full Length Mock Test-9	03-01-2022
Test-62	Full Length Mock Test-10	10-01-2022
Test-63	Full Length Mock Test-11	17-01-2022
Test-64	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 test 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
EC_P-01	**Engineering Mathematics-1:** Linear Algebra, Calculus, Differential Equations and Vector Analysis.	
EC_P-02	**Engineering Mathematics-2:** Complex Anaysis, Probability and Statistics.	
EC_P-03	**Control Systems-1:** Basic control system components; Feedback principle; Transfer function; Block diagram representation; Signal flow graph; Transient and steady-state analysis of LTI systems; Routh – Hurwitz stability criteria, root-locus plot.	
EC_P-04	**Control Systems-2:** Frequency response; Nyquist stability criteria; Bode Plot, Lag, lead and lag-lead compensation; State variable model and solution of state equation of LTI systems.	
EC_P-05	**Signals and Systems -1:** Introduction to signals, LTI systems: definition and properties, causality, stability, impulse response, convolution. Fourier series and Fourier transform representations. sampling theorem and applications. Frequency response, group delay and phase delay.	
EC_P-06	**Signals and Systems -2:** Laplace transform, discrete-time Fourier transform (DTFT), DFT, Z-transform, poles and zeros, discrete-time processing of continuous-time signals.	
EC_P-07	**Digital Circuits-1:** Binary, integer and floating-point numbers, Combinatorial circuits: Boolean algebra, minimization of functions using Boolean identities and Karnaugh map, logic gates and their static CMOS implementations, arithmetic circuits, code converters, multiplexers, decoders.	
EC_P-08	**Digital Circuits-2:** Sequential circuits: latches and flip-flops, counters, shift-registers, finite state machines, propagation delay, setup and hold time, critical path delay. Data converters: sample and hold circuits, ADCs and DACs.	
EC_P-09	**Digital Circuits-3:** Semiconductor memories: ROM, SRAM, DRAM Computer organization: Machine instructions and addressing modes, ALU, data-path and control unit, instruction pipelining.	15-04-2021
EC_P-10	**Networks-1:** Circuit analysis: Node and mesh analysis, superposition, Thevenin's theorem, Norton's theorem, reciprocity, maximum power transfer, wye-delta transformation	
EC_P-11	**Networks-2:** Sinusoidal steady state analysis: phasors, complex power, Time and frequency domain analysis of linear circuits: RL, RC and RLC circuits, solution of network equations using Laplace transform. Linear 2-port network parameters	
EC_P-12	**Electronic Devices-1:** Energy bands in intrinsic and extrinsic silicon; Carrier transport: diffusion current, drift current, mobility and resistivity; Generation and recombination of carriers; Poisson and continuity equations; P-N junction, Zener diode, BJT. Direct and Indiect band-gap semiconductor.	
EC_P-13	**Electronic Devices-2:** MOS capacitor, MOSFET, LED, photo diode and solar cell;	
EC_P-14	**Analog Circuits-1:** Diode circuits: clipping, clamping and rectifiers. BJT and MOSFET amplifiers: biasing, ac coupling, small signal analysis, frequency response, Current mirrors.	
EC_P-15	**Analog Circuits-2:** Op-amp circuits: Amplifiers, summers, differentiators, integrators, active filters, Schmitt triggers and oscillators. Differential amplifiers.	
EC_P-16	**Communications-1:** Analog communications: amplitude modulation and demodulation, angle modulation and demodulation, spectra of AM and FM, superheterodyne receivers.	
EC_P-17	**Communications-2:** Random processes: autocorrelation and power spectral density, properties of white noise, filtering of random signals through LTI systems. Information theory: entropy, mutual information and channel capacity theorem.	
EC_P-18	**Communications-3:** Digital communications: PCM, DPCM, digital modulation schemes (ASK, PSK, FSK, QAM), bandwidth, inter-symbol interference, MAP, ML detection, matched filter receiver, SNR and BER. Fundamentals of error correction, Hamming codes, CRC.	
EC_P-19	**Electromagnetics-1:** Maxwell's equations: differential and integral forms and their interpretation, boundary conditions, wave equation, Poynting vector; Plane waves and properties: reflection and refraction, polarization, phase and group velocity, propagation through various media, skin depth.	
EC_P-20	**Electromagnetics-2:** Transmission lines: equations, characteristic impedance, impedance matching, impedance transformation, S-parameters, Smith chart; Rectangular and circular waveguides, light propagation in optical fibers, dipole and monopole antennas, linear antenna arrays.	

Test No	Name of the Topic	Date of Activation
EC_P-21	**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	15-04-2021
EC_P-22	**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
(No.of Questions: 30, Time duration: 90 Minutes and Marks: 50 M)

Test No	Name of the Subject	Date of Activation
EC_P-23	Engineering Mathematics	20-04-2021
EC_P-24	Control Systems	
EC_P-25	Signals and Systems	
EC_P-26	Digital Circuits	
EC_P-27	Networks	
EC_P-28	Electronic Devices	
EC_P-29	Analog Circuits	
EC_P-30	Communications	
EC_P-31	Electromagnetics	
EC_P-32	General Aptitude	

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

Test No	Name of the Subject	Date of Activation
EC_P-33	Networks & Electromagnetics	20-04-2021
EC_P-34	Control Systems & Signals and Systems	
EC_P-35	Electronic Devices & Analog Circuits	
EC_P-36	Communications & Digital Circuits	
EC_P-37	Engineering Mathematics & General Aptitude	
EC_P-38	Control Systems, Signals and Systems, Digital Circuits & Analog Circuits	
EC_P-39	Electronic Devices, Networks, Communications & Electromagnetics	
EC_P-40	Signals and Systems, Analog Circuits, Electronic Devices & Communications	
EC_P-41	Control Systems, Neworks, Digital Circuits & Electromagnetics	
EC_P-42	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 Mock	Date of Activation
EC_P-43	Full Length Mock Test-1	30-04-2021
EC_P-44	Full Length Mock Test-2	
EC_P-45	Full Length Mock Test-3	
EC_P-46	Full Length Mock Test-4	
EC_P-47	Full Length Mock Test-5	
EC_P-48	Full Length Mock Test-6	
EC_P-49	Full Length Mock Test-7	
EC_P-50	Full Length Mock Test-8	
EC_P-51	Full Length Mock Test-9	
EC_P-52	Full Length Mock Test-10	
EC_P-53	Full Length Mock Test-11	
EC_P-54	Full Length Mock Test-12	