GATE-2021 Online Test Series

Civil Engineering - Schedule

No.of Test : 64 (22 Topic wise Tests + 30 Grand Tests + 12 Full Length Mock Tests)

+ *Free* 52 practice Tests of GATE-2020 Online Test Series

Topic wise Tests

Test No	Name of the Topic	No. of Questions	Max Marks	Duration	Date of Activation
Test-01	**Engineering Mathematics-1:** Linear Algebra, Calculus, Ordinary Differential Equation.	15	25	45 mins	03-06-2020
Test-02	**Engineering Mathematics-2:** Partial Differential Equation, Probability and Statistics, Numerical Methods.	15	25	45 mins	
Test-03	**Engineering Mechanics:** System of forces, free-body diagrams, equilibrium equations; Internal forces in structures; Friction and its applications; Centre of mass; Free vibration of undamped SDOF system.	15	25	45 mins	
Test-04	**Geotechnical Engineering-1:** Soil Mechanics: Three-phase system and phase relationships, index properties; Unified and Indian standard soil classification system; Permeability - one dimensional flow, Seepage through soils – two - dimensional flow, flow nets, uplift pressure, piping, capillarity, seepage force; Principle of effective stress and quicksand condition; Compaction of soils; One- dimensional consolidation, time rate of consolidation; Shear Strength, Mohr's circle, effective and total shear strength parameters, Stress-Strain characteristics of clays and sand; Stress paths.	15	25	45 mins	
Test-05	**Geotechnical Engineering-2:** Foundation Engineering: Sub-surface investigations - Drilling bore holes, sampling, plate load test, standard penetration and cone penetration tests; Earth pressure theories - Rankine and Coulomb; Stability of slopes – Finite and infinite slopes, Bishop's method; Stress distribution in soils – Boussinesq's theory; Pressure bulbs, Shallow foundations – Terzaghi's and Meyerhoff's bearing capacity theories, effect of water table; Combined footing and raft foundation; Contact pressure; Settlement analysis in sands and clays; Deep foundations - dynamic and static formulae, Axial load capacity of piles in sands and clays, pile load test, pile under lateral loading, pile group efficiency, negative skin friction.	15	25	45 mins	11-06-2020
Test-06	**Structural Analysis-1:** Statically determinate and indeterminate structures by force/ energy methods; Method of superposition; Analysis of trusses, Arches, cables.	15	25	45 mins	
Test-07	**Structural Analysis-2** Analysis of Beams, and frames; Displacement methods: Slope deflection and moment distribution methods; Influence lines; Stiffness and flexibility methods of structural analysis.	15	25	45 mins	
Test-08	**Concrete Structures-1:** Working stress, Limit state and Ultimate load design concepts; Design of beams; Shear; Bond and development length. **Steel Structures-1:** Rivetted, bolted, Welded and Eccentric Connections, Tension & Compression Members, Column Bases & Column Splices.	15	25	45 mins	
Test-09	**Concrete Structures-2:** Design of Slabs, columns; Footing, Limit State of Serviceability; Prestressed concrete; Analysis of beam sections at transfer and service loads. **Steel Structures-2:** Plastic analysis of beams and frames, Beams, Plate Girder, Gantry Girders & Roof Trusses.	15	25	45 mins	
Test-10	**Solid Mechanics-1:** Simple stress and strain relationships, Complex Stresses and Strains, Bending moment and shear force in statically determinate beams; Deflections & Slopes, buckling of column, combined and direct bending stresses	15	25	45 mins	18-06-2020
Test-11	**Solid Mechanics-2:** Simple bending theory, flexural and shear stresses, shear centre; Uniform torsion, Moment of Inertia.	15	25	45 mins	
Test-12	**Fluid Mechanics-1:** Properties of fluids, fluid statics; Continuity, momentum and energy equations and their applications; Potential flow, Laminar and turbulent flow; Flow in pipes, pipe networks; Concept of boundary layer and its growth; Concept of lift and drag.	15	25	45 mins	
Test-13	**Fluid Mechanics-2: Hydraulics:** Forces on immersed bodies; Flow measurement in channels and pipes; Dimensional analysis and hydraulic similitude; Channel Hydraulics - Energy-depth relationships, specific energy, critical flow, hydraulic jump, uniform flow, gradually varied flow and water surface profiles.	15	25	45 mins	

Test No	Name of the Topic	No. of Questions	Max Marks	Duration	Date of Activation
Test-14	**Hydrology:** Hydrologic cycle, precipitation, evaporation, evapo-transpiration, watershed, infiltration, unit hydrographs, hydrograph analysis, flood estimation and routing, reservoir capacity, surface run-off models, ground water hydrology - steady state well hydraulics and aquifers; Application of Darcy's law.	15	25	45 mins	25-06-2020
Test-15	**Irrigation:** Types of irrigation systems and methods; Crop water requirements - Duty, delta, evapo-transpiration; Gravity Dams and Spillways; Lined and unlined canals, Design of weirs on permeable foundation; cross drainage structures.	15	25	45 mins	
Test-16	**Environmental Engineering-1:** **Water and Waste Water Quality and Treatment:** Basics of water quality standards – Physical, chemical and biological parameters; Water quality index; Unit processes and operations; Water requirement; Water distribution system; Drinking water treatment.	15	25	45 mins	25-06-2020
Test-17	**Environmental Engineering-2:** Sewerage system design, quantity of domestic wastewater, primary and secondary treatment. Effluent discharge standards; Sludge disposal; Reuse of treated sewage for different applications. Air Pollution: Types of pollutants, their sources and impacts, air pollution control, air quality standards, Air quality Index and limits. Municipal Solid Wastes: Characteristics, generation, collection and transportation of solid wastes, engineered systems for solid waste management (reuse/ recycle, energy recovery, treatment and disposal).	15	25	45 mins	
Test-18	**Transportation Engineering-1:** Geometric design of highways - cross-sectional elements, sight distances, horizontal and vertical alignments. Geometric design of railway Track – Speed and Cant. Concept of airport runway length, calculations and corrections; taxiway and exit taxiway design. Highway materials - desirable properties and tests; Desirable properties of bituminous paving mixes; **Geomatics Engineering-1:** Principles of surveying; Errors and their adjustment; Maps - scale, coordinate system; Distance and angle measurement - Levelling and trigonometric levelling; Traversing and triangulation survey; Total station; Horizontal and vertical curves.	15	25	45 mins	
Test-19	**Transportation Engineering-2:** Pavement Design: Design factors for flexible and rigid pavements. Design of flexible and rigid pavements using IRC codes. Traffic Engineering: traffic studies on flow and speed, peak hour factor, accident study, structural analysis of traffic data, microscopic and macroscopic parameters of traffic flow, fundamental relationships, traffic signs, signal design by Webster method, types of intersections, Highway capacity **Geomatics Engineering-2:** Photogrammetry and Remote Sensing - Scale, flying height; Basics of remote sensing and GIS.	15	25	45 mins	
Test-20	**Construction Materials and CPM:** *Construction materials:* Structural steel - composition, material properties and behaviour; Concrete - constituents, mix design, short-term and long-term properties; *Construction Project Management:* Types of construction projects, Project planning and Network Analysis – PERT and CPM, Cost Estimation.	15	25	45 mins	02-07-2020
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	15	25	45 mins	
Test-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.	15	25	45 mins	

Subject Wise Grand Tests - 1st Series

Test No	Name of the Topic	No. of Questions	Max Marks	Duration	Date of Activation
Test-23	Engineering Mathematics	30	50	90 mins	16-07-2020
Test-24	Engineering Mechanics & Strength of Materials(Solid Mechanics)	30	50	90 mins	
Test-25	Environmental engineering	30	50	90 mins	23-07-2020
Test-26	Structural Analysis	30	50	90 mins	
Test-27	Concrete Structures & Steel Structures	30	50	90 mins	30-07-2020
Test-28	Geotechnical Engineering	30	50	90 mins	
Test-29	Hydrology & Irrigation	30	50	90 mins	06-08-2020
Test-30	Fluid Mechanics	30	50	90 mins	
Test-31	Transportation Engineering	30	50	90 mins	12-08-2020
Test-32	Geomatics Engineering	30	50	90 mins	
Test-33	Construction Materials & CPM	30	50	90 mins	14-08-2020
Test-34	General Aptitude	30	50	90 mins	

Full Length Mock GATE Test - 1st Series (As per GATE pattern)

Test No	Name of the Topic	No. of Questions	Max Marks	Duration	Date of Activation
Test-35	Full Length GATE Mock Test-1	65	100	180 mins	20-08-2020
Test-36	Full Length GATE Mock Test-2	65	100	180 mins	27-08-2020
Test-37	Full Length GATE Mock Test-3	65	100	180 mins	03-09-2020

Subject Wise Grand Tests - 2nd Series

Test No	Name of the Topic	No. of Questions	Max Marks	Duration	Date of Activation
Test-38	Engineering Mathematics	30	50	90 mins	10-09-2020
Test-39	Engineering Mechanics & Strength of Materials(Solid Mechanics)	30	50	90 mins	
Test-40	Environmental engineering	30	50	90 mins	17-09-2020
Test-41	Structural Analysis	30	50	90 mins	
Test-42	Concrete Structures & Steel Structures	30	50	90 mins	24-09-2020
Test-43	Geotechnical Engineering	30	50	90 mins	
Test-44	Hydrology & Irrigation	30	50	90 mins	01-09-2020
Test-45	Fluid Mechanics	30	50	90 mins	
Test-46	Transportation Engineering	30	50	90 mins	08-10-2020
Test-47	Geomatics Engineering	30	50	90 mins	
Test-48	Construction Materials & CPM	30	50	90 mins	10-10-2020
Test-49	General Aptitude	30	50	90 mins	

Full Length Mock GATE Tests- 2nd Series

Test No	Name of the Topic	No. of Questions	Max Marks	Duration	Date of Activation
Test-50	Full Length GATE Mock Test-4	65	100	180 mins	15-10-2020
Test-51	Full Length GATE Mock Test-5	65	100	180 mins	22-10-2020
Test-52	Full Length GATE Mock Test-6	65	100	180 mins	29-10-2020

Multi-Subject Wise Grand Tests

Test No	Name of the Topic	No. of Questions	Max Marks	Duration	Date of Activation
Test-53	Engineering Mechanics, Solid Mechanics & Structural Analysis	30	50	90 mins	05-11-2020
Test-54	Geotechnical Engineering & Fluid Mechanics	30	50	90 mins	
Test-55	Construction Materials & CPM, Concrete Structures & Steel Structures	30	50	90 mins	12-11-2020
Test-56	Hydrology & Irrigation & Environmental engineering	30	50	90 mins	
Test-57	Transportation Engineering & Geomatics Engineering	30	50	90 mins	19-11-2020
Test-58	Engineering Mathematics & General Aptitude	30	50	90 mins	

Full Length Mock GATE Tests - 3rd Series

Test No	Name of the Topic	No. of Questions	Max Marks	Duration	Date of Activation
Test-59	Full Length GATE Mock Test-7	65	100	180 mins	03-12-2020
Test-60	Full Length GATE Mock Test-8	65	100	180 mins	10-12-2020
Test-61	Full Length GATE Mock Test-9	65	100	180 mins	05-01-2020
Test-62	Full Length GATE Mock Test-10	65	100	180 mins	12-01-2020
Test-63	Full Length GATE Mock Test-11	65	100	180 mins	19-01-2020
Test-64	Full Length GATE Mock Test-12	65	100	180 mins	26-01-2020

Free Practice Tests of GATE-2020 Online Test Series

Topic wise Tests

Test No	Name of the Topic	No. of Questions	Max Marks	Duration	Date of Activation
CE_P01	**Engineering Mathematics-1:** Linear Algebra, Calculus, Ordinary Differential Equation & Partial Differential Equation	15	25	45 mins	20-04-2020
CE_P02	**Engineering Mathematics-2:** Numerical Methods, Probability and Statistics, Laplace transform & Fourier series	15	25	45 mins	
CE_P03	**Engineering Mechanics:** System of forces, free-body diagrams, equilibrium equations; Internal forces in structures; Friction and its applications; Kinematics of point mass and rigid body; Centre of mass; Euler's equations of motion; Impulse-momentum; Energy methods; Principles of virtual work.	15	25	45 mins	
CE_P04	**Geotechnical Engineering-1:** Origin of soils, soil structure and fabric; Three-phase system and phase relationships, index properties; Unified and Indian standard soil classification system; Permeability - one dimensional flow, Darcy's law; Seepage through soils - two-dimensional flow, flow nets, uplift pressure, piping; Principle of effective stress, capillarity, seepage force and quicksand condition; Compaction in laboratory and field conditions; Onedimensional consolidation, time rate of consolidation; Mohr's circle, stress paths, effective and total shear strength parameters, characteristics of clays and sand.	15	25	45 mins	
CE_P05	**Geotechnical Engineering-2:** Foundation Engineering: Sub-surface investigations - scope, drilling bore holes, sampling, plate load test, standard penetration and cone penetration tests; Earth pressure theories - Rankine and Coulomb; Stability of slopes - finite and infinite slopes, method of slices and Bishop's method; Stress distribution in soils - Boussinesq's and Westergaard's theories, pressure bulbs; Shallow foundations - Terzaghi's and Meyerhoff's bearing capacity theories, effect of water table; Combined footing and raft foundation; Contact pressure; Settlement analysis in sands and clays; Deep foundations - types of piles, dynamic and static formulae, load capacity of piles in sands and clays, pile load test, negative skin friction.	15	25	45 mins	
CE_P06	**Structural Analysis-1:** Statically determinate and indeterminate structures by force/ energy methods; Method of superposition; Analysis of trusses, Arches, cables.	15	25	45 mins	
CE_P07	**Structural Analysis-2** Analysis of Beams, and frames; Displacement methods: Slope deflection and moment distribution methods; Influence lines; Stiffness and flexibility methods of structural analysis.	15	25	45 mins	
CE_P08	**Concrete Structures-1:** Working stress, Limit state and Ultimate load design concepts; Design of beams; Shear; Bond and development length. **Steel Structures-1:** Rivetted, bolted, Welded and Eccentric Connections, Tension & Compression Members, Column Bases & Column Splices.	15	25	45 mins	
CE_P09	**Concrete Structures-2:** Design of Slabs, columns; Footing, Limit State of Serviceability; Prestressed concrete; Analysis of beam sections at transfer and service loads. **Steel Structures-2:** Plastic analysis of beams and frames, Beams, Plate Girder, Gantry Girders & Roof Trusses.	15	25	45 mins	
CE_P10	**Solid Mechanics-1:** Simple stress and strain relationships, Complex Stresses and Strains, Bending moment and shear force in statically determinate beams; Deflections & Slopes, buckling of column, combined and direct bending stresses	15	25	45 mins	
CE_P11	**Solid Mechanics-2:** Simple bending theory, flexural and shear stresses, shear centre; Uniform torsion, Moment of Inertia, Theories of Failures.	15	25	45 mins	
CE_P12	**Fluid Mechanics-1:** Properties of fluids, fluid statics; Forces on immersed bodies; Continuity, momentum, energy and corresponding equations; Potential flow, applications of momentum and energy equations; Flow measurement in channels and pipes; Laminar and turbulent flow; Flow in pipes, pipe networks; Concept of boundary layer and its growth.	15	25	45 mins	
CE_P13	**Fluid Mechanics-2:** Dimensional analysis and hydraulic similitude; Kinematics of flow, velocity triangles; Basics of hydraulic machines, specific speed of pumps and turbines; Channel Hydraulics - Energy-depth relationships, specific energy, critical flow, slope profile, hydraulic jump, uniform flow and gradually varied flow.	15	25	45 mins	
CE_P14	**Hydrology & Irrigation-1:** Hydrologic cycle, precipitation, evaporation, evapo-transpiration, watershed, infiltration, unit hydrographs, hydrograph analysis, flood estimation and routing, reservoir capacity, reservoir and channel routing, surface run-off models, ground water hydrology - steady state well hydraulics and aquifers; Application of Darcy's law.	15	25	45 mins	
CE_P15	**Hydrology & Irrigation-2:** Duty, delta, estimation of evapo-transpiration; Crop water requirements; Design of lined and unlined canals, head works, gravity dams and spillways; Design of weirs on permeable foundation; Types of irrigation systems, irrigation methods; Water logging and drainage; Canal regulatory works, cross-drainage structures, outlets and escapes.	15	25	45 mins	

Test No	Name of the Topic	No. of Questions	Max Marks	Duration	Date of Activation
CE_P16	**Environmental Engineering-1:** Quality standards, basic unit processes and operations for water treatment. Drinking water standards, water requirements, basic unit operations and unit processes for surface water treatment, distribution of water.	15	25	45 mins	20-04-2020
CE_P17	**Environmental Engineering-2:** Sewage and sewerage treatment, quantity and characteristics of wastewater. Primary, secondary and tertiary treatment of wastewater, effluent discharge standards. Domestic wastewater treatment, quantity of characteristics of domestic wastewater, primary and secondary treatment. Unit operations and unit processes of domestic wastewater, sludge disposal. Air Pollution: Types of pollutants, their sources and impacts, air pollution meteorology, air pollution control, air quality standards and limits. Municipal Solid Wastes: Characteristics, generation, collection and transportation of solid wastes, engineered systems for solid waste management (reuse/ recycle, energy recovery, treatment and disposal). Noise Pollution: Impacts of noise, permissible limits of noise pollution, measurement of noise and control of noise pollution.	15	25	45 mins	
CE_P18	**Transportation Engineering-1:** Highway alignment and engineering surveys; Geometric design of highways - cross-sectional elements, sight distances, horizontal and vertical alignments; Highway materials - desirable properties and quality control tests; Design of bituminous paving mixes. **Geomatics Engineering-1:** Geometric design of railway track; Airport runway length, taxiway and exit taxiway design. Errors and their adjustment; Maps - scale, coordinate system; Distance and angle measurement - Levelling and trigonometric levelling; Traversing survey; Contours; Areas and volumes.	15	25	45 mins	
CE_P19	**Transportation Engineering-2:** Design factors for flexible and rigid pavements; Design of flexible pavement using IRC: 37-2012; Design of rigid pavements using IRC: 58-2011; Distresses in concrete pavements. Traffic Engineering: Traffic studies on flow, speed, travel time - delay and O-D study, PCU, peak hour factor, parking study, accident study and analysis, statistical analysis of traffic data; Microscopic and macroscopic parameters of traffic flow, fundamental relationships; Control devices, signal design by Webster's method; Types of intersections and channelization . Highway capacity and level of service of rural highways and urban roads. **Geomatics Engineering-2:** Triangulation survey; Total station; Horizontal and vertical curves. Photogrammetry - scale, flying height; Remote sensing - basics, platform and sensors, visual image interpretation; Basics of Geographical information system (GIS) and Geographical Positioning system (GPS).	15	25	45 mins	
CE_P20	**Construction Materials and Management:** *Construction materials:* Construction Materials: Structural steel - composition, material properties and behaviour; Concrete - constituents, mix design, short-term and long-term properties; Bricks and mortar; Timber; Bitumen. *Construction Management:* Types of projects, Tendering & Contracts, Rate analysis, standard specifications, Cost Estimation, Project planning and Network Analysis – PERT and CPM.	15	25	45 mins	
CE_P21	**Verbal Ability:** English grammar, sentence completion, verbal analogies, word groups, instructions, critical reasoning and verbal deduction.	15	25	45 mins	
CE_P22	**Numarical Ability:** Numerical computation, numerical estimation, numerical reasoning and data interpretation.	15	25	45 mins	

Subject Wise Grand Tests

Test No	Name of the Topic	No. of Questions	Max Marks	Duration	Date of Activation
CE_P23	Engineering Mathematics	30	50	90 mins	20-04-2020
CE_P24	Engineering Mechanics & Strength of Materials(Solid Mechanics)	30	50	90 mins	
CE_P25	Environmental engineering	30	50	90 mins	
CE_P26	Structural Analysis	30	50	90 mins	
CE_P27	Concrete Structures & Steel Structures	30	50	90 mins	
CE_P28	Geotechnical Engineering	30	50	90 mins	
CE_P29	Hydrology & Irrigation	30	50	90 mins	
CE_P30	Fluid Mechanics	30	50	90 mins	
CE_P31	Transportation Engineering	30	50	90 mins	
CE_P32	Geomatics Engineering	30	50	90 mins	
CE_P33	Construction Materials & Management	30	50	90 mins	
CE_P34	General Aptitude	30	50	90 mins	

Multi-Subject Wise Grand Tests

Test No	Name of the Topic	No. of Questions	Max Marks	Duration	Date of Activation
CE_P35	Engineering Mechanics, Solid Mechanics & Structural Analysis	30	50	90 mins	20-04-2020
CE_P36	Geotechnical Engineering & Fluid Mechanics	30	50	90 mins	
CE_P37	Construction Materials & Management, Concrete Structures & Steel Structures	30	50	90 mins	
CE_P38	Hydrology & Irrigation & Environmental engineering	30	50	90 mins	
CE_P39	Transportation Engineering & Geomatics Engineering	30	50	90 mins	
CE_P40	Engineering Mathematics & General Aptitude	30	50	90 mins	

Full Length Mock GATE Tests

Test No	Name of the Topic	No. of Questions	Max Marks	Duration	Date of Activation
CE_P41	Full Length GATE Mock Test-1	65	100	180 mins	20-04-2020
CE_P42	Full Length GATE Mock Test-2	65	100	180 mins	
CE_P43	Full Length GATE Mock Test-3	65	100	180 mins	
CE_P44	Full Length GATE Mock Test-4	65	100	180 mins	
CE_P45	Full Length GATE Mock Test-5	65	100	180 mins	
CE_P46	Full Length GATE Mock Test-6	65	100	180 mins	
CE_P47	Full Length GATE Mock Test-7	65	100	180 mins	
CE_P48	Full Length GATE Mock Test-8	65	100	180 mins	
CE_P49	Full Length GATE Mock Test-9	65	100	180 mins	
CE_P50	Full Length GATE Mock Test-10	65	100	180 mins	
CE_P51	Full Length GATE Mock Test-11	65	100	180 mins	
CE_P52	Full Length GATE Mock Test-12	65	100	180 mins	