GATE 2019
Online Test Series

gradeup

Civil Engineering

PACKAGES

GATE CE 2019 SUBJECT TESTS	GATE CE 2019 MOCK TESTS	GATE CE 2019 COMBO TESTS
26 Subject Tests + 4 Part Tests + 10 Free Previous Year Papers with solution	10 Full Length Mock Test	26 Subject Tests + 4 Part Tests + 10 Free Previous Year Papers with solution + 10 Full Length Mock Test
₹500/-	₹500/-	₹650/-

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Civil Engineering

FEATURES

- 26 Subject Tests based on the latest GATE pattern
- 4 Part Test covering the multiple subjects
- 10 Full Length GATE Mock Test
- 10 Free Previous year papers with solutions
- Detailed explanation of solutions
- Video solutions for the difficult questions

TEST SERIES HIGHLIGHTS

- Trusted brand by GATE Aspirants every year
- Get your instant AIR for each test
- Based on latest GATE exam pattern & syllabus
- Test wise comparison with toppers
- 1350+ high quality questions
- Name & Marks of the toppers in each test

TEST TYPE	NUMBER OF Qs		TIME	MAX. MARKS
	1M	2M		
Subject Test	10Qs	10Qs	45 min	30
Part Test	30Qs	35Qs	180 min	100
Mock Test	30Qs	35Qs	180 min	100

GATE 2019 Civil Engineering			
Online Test Series Schedule			
LIVE Date	**Day**	**GATE CE**	**Test Code**
4 July 2018	Wednesday	**GATE Mock Test 1**	M1
10 July 2018	Tuesday	**Hydrology 1**	S1A
13 July 2018	Friday	**Hydrology 2**	S1B
17 July 2018	Tuesday	**Irrigation Engineering**	S2
20 July 2018	Friday	**Fluid Mechanics & Hydraulics 1**	S3A
24 July 2018	Tuesday	**Fluid Mechanics & Hydraulics 2**	S3B
27 July 2018	Friday	**Strength of Materials 1**	S4A
1 August 2018	Wednesday	**Part Test 1**	P1
7 August 2018	Tuesday	**Strength of Materials 2**	S4B
10 August 2018	Friday	**Building Materials**	S5
14 August 2018	Tuesday	**Construction Management**	S6
17 August 2018	Friday	**Structure Analysis 1**	S7A
21 August 2018	Tuesday	**Structure Analysis 2**	S7B
24 August 2018	Friday	**R.C.C & Prestressed Concrete 1**	S8A
28 August 2018	Tuesday	**Part Test 2**	P2
31 August 2018	**Wednesday**	**GATE Mock Test 2**	**M2**
4 September 2018	Tuesday	**R.C.C & Prestressed Concrete 2**	S8B
7 September 2018	Friday	**Environmental Engineering 1**	S9A
11 September 2018	Tuesday	**Environmental Engineering 2**	S9B

14 September 2018	Friday	**Transportation Engineering**	S10
18 September 2018	Tuesday	**Surveying**	S11
21 September 2018	Friday	**Geotechnical Engineering 1**	S12A
26 September 2018	Wednesday	**Part Test 3**	P3
3 October 2018	Wednesday	**Geotechnical Engineering 2**	S12B
6 October 2018	Saturday	**Geotechnical Engineering 3**	S12C
9 October 2018	Tuesday	**Engineering Mechanics**	S13
12 October 2018	Friday	**Design of Steel Structures**	S14
16 October 2018	Tuesday	**Engineering Mathematics 1**	S15A
18 October 2018	Thursday	**Engineering Mathematics 2**	S15B
24 October 2018	Wednesday	**Part Test 4**	P4
26 October 2018	Friday	**General Aptitude 1**	S16A
28 October 2018	Sunday	**General Aptitude 2**	S16B
31 October 2018	**Wednesday**	**GATE Mock Test 3**	**M3**
14 November 2018	**Wednesday**	**GATE Mock Test 4**	**M4**
21 November 2018	**Wednesday**	**GATE Mock Test 5**	**M5**
28 November 2018	**Wednesday**	**GATE Mock Test 6**	**M6**
5 December 2018	**Wednesday**	**GATE Mock Test 7**	**M7**
12 December 2018	**Wednesday**	**GATE Mock Test 8**	**M8**
19 December 2018	**Wednesday**	**GATE Mock Test 9**	**M9**
26 December 2018	**Wednesday**	**GATE Mock Test 10**	**M10**

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Why should you join **grade**up for **GATE CE 2019 Exam?**

gradeup **GATE 2019 Test Series** includes questions based on latest the pattern with features such as **NAT** questions, **Virtual Calculator** & Video Solutions for the important questions to enhance performance

Alignment of each subject in **grade**up **2019 GATE CE Test Series** with **grade**up **CE Champion Study Plan** will help you to prepare smartly & keep momentum during the preparation.

gradeup **CE Champion Study Plan** includes

- Detailed 130+ days schedule & Daily topic-wise Study Notes
- Related Daily Quizzes, Short Formula Notes, Subject Revision Test
- LIVE Quiz/Doubt Session for each Subject

gradeup is the platform which allow the each aspirants to prepare, practice quizzes and attempt **Online Test Series** for each subject & can clear their doubts through **grade**up mentors & thousands of other daily active aspirants for **GATE exam.**

gradeup is the one-stop solution for the best preparation and questions practice (Quizzes & Test-Series) for **GATE 2019.**

gradeup is **#1 Exam preparation app** which provides Champion Study Plan including Study notes, quizzes and other important stuff for effective GATE preparations at Zero Cost.

GATE CE 2019 Online Test Series	
Syllabus Distribution	
Test Code	**Syllabus**
M1	**Full GATE 2019 CE Syllabus**
S1A	Hydrologic cycle, precipitation, evaporation, evapo-transpiration, watershed, infiltration, unit hydrographs, hydrograph analysis
S1B	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.
S2	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.
S3A	Properties of fluids, fluid statics; Forces on immersed bodies; Continuity, momentum, energy and corresponding equations; Potential flow, applications of momentum and energy equations; Laminar and turbulent flow; Flow in pipes, pipe networks; Concept of boundary layer and its growth. Dimensional analysis and hydraulic similitude.
S3B	Flow measurement in channels and pipes; Kinematics of flow, velocity triangles; Basics of hydraulic machines, specific speed of pumps and turbines; Open Channel Hydraulics - Energy-depth relationships, specific energy, critical flow, slope profile, hydraulic jump, uniform flow and gradually varied flow.
S4A	Simple stress and strain relationships; Bending moment and shear force in statically determinate beams; SFD, BMD; flexural and shear stresses, Combined Stress
P1	**S1A + S1B + S2 + S3A + S3B + S4A**
S4B	Principle Stress & Strain, shear centre & Pressure Vessels; Uniform torsion, buckling of column, Deflection of beam
S5	Construction Materials: Cement & Concrete - constituents, mix design, short-term and long-term properties; Structural steel - composition, material properties and behaviour; Bricks and mortar; Timber; Bitumen.
S6	Construction Management: Types of construction projects; Tendering and construction contracts; Rate analysis and standard specifications; Cost estimation; Project planning and network analysis - PERT and CPM,
S7A	Statically determinate and indeterminate structures by force/ energy methods; Method of superposition; Analysis of trusses, arches, beams, cables and frames.
S7B	Displacement methods: Slope deflection and moment distribution methods; Influence lines; Stiffness and flexibility methods of structural analysis.
S8A	Working stress (WSM), Limit state (LSM) and Ultimate load design concepts; Design of beams, slabs. (based on LSM)

P2	**S4B + S5 + S6 + S7A + S7B + S8A**
M2	**Full GATE 2019 CE Syllabus**
S8B	Columns; Bond and development length; Prestressed concrete; Analysis of beam sections at transfer and service loads.
S9A	**Water**: 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. **Air Pollution**: Types of pollutants, their sources and impacts, air pollution meteorology, air pollution control, air quality standards and limits. **Noise Pollution**: Impacts of noise, permissible limits of noise pollution, measurement of noise and control of noise pollution.
S9B	**Waste water**: 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. **Municipal Solid Wastes**: Characteristics, generation, collection and transportation of solid wastes, engineered systems for solid waste management (reuse/ recycle, energy recovery, treatment and disposal).
S10	Highway alignment and engineering surveys; Geometric design of highways - cross-sectional elements, sight distances, horizontal and vertical alignments; Geometric design of railway track; Airport runway length, taxiway and exit taxiway design. Highway Pavements: Highway materials-desirable properties and quality control tests; Design of bituminous paving mixes; 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.
S11	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, Photogrammetry - scale, flying height; Remote sensing - basics, platform and sensors, visual image interpretation; Basics of Geographical information system (GIS) and Geographical Positioning system (GPS).
S12A	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; One-dimensional consolidation, time rate of consolidation.

P3	**S8B + S9A + S9B + S10 + S11 + S12A**
S12B	Mohr's circle, stress paths, effective and total shear strength parameters, characteristics of clays and sand. 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.
S12C	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.
S13	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;
S14	Working stress and Limit state design concepts; Design of tension and compression members, Plastic analysis of beams and frames. Plate girders and trusses; beams and beam- columns, column bases; Connections - simple and eccentric, beam-column connections.
S15A	Linear Algebra, Limits & Continuity and Differential Equations
S15B	Calculus, Numerical Methods, Conditional Probability and Probability Distributions
P4	**S12B + S12C+ S13 + S14 + S15A + S15B**
S16A	**Numerical Ability**: Numerical computation, numerical estimation, numerical reasoning and data interpretation.
S16B	**Verbal Ability**: English grammar, sentence completion, verbal analogies, word groups, instructions, critical reasoning and verbal deduction.
M3	**Full GATE 2019 CE Syllabus**
M4	**Full GATE 2019 CE Syllabus**
M5	**Full GATE 2019 CE Syllabus**
M6	**Full GATE 2019 CE Syllabus**
M7	**Full GATE 2019 CE Syllabus**
M8	**Full GATE 2019 CE Syllabus**
M9	**Full GATE 2019 CE Syllabus**
M10	**Full GATE 2019 CE Syllabus**

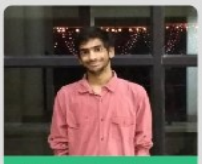
Congratulations to our GATE 2018 Toppers

GATE EC

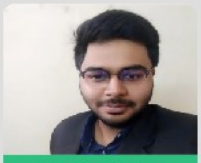

Kanishak Vaidya
AIR 10


Himanshu Mittal
AIR 44


Manas Roy
AIR 74


Abhishek Kumar
AIR 80

GATE CE


Rohit Sinha
AIR 14


Swaraj Jayswal
AIR 17


Dalveer Singh
AIR 56


Subramanian
AIR 70

GATE EE


Pinaki Mondal
AIR 3


Kurma Akhil
AIR 33


Prashaanth R
AIR 84


Rohit Gupta
AIR 108

GATE ME


Abhinav
AIR 6


Harish Chaudhary
AIR 87

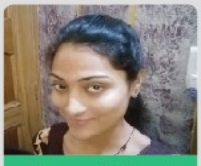

Gaurav Kumar
AIR 124


K Parthasarathi
AIR 155

GATE CS


Deeksha Garg
AIR 27


Ayush Goel
AIR 50


Deepti Mittal
AIR 62


Hemant Parihar
AIR 94