

MADE EASY

India's Best Institute for IES, GATE & PSUs

Key Features:

- Dynamic test series for cyclic revision of subjects.
- Tests are time tabled with "New Topics" and "Repeat Topics" to maintain the continuity and a perfect balance between tech and non tech subjects.
- Test series contains 13 tests from Paper I (GS and Engineering Aptitude) and 13 tests from Paper-II (Engineering Discipline).
- Quality Questions as per latest trend of UPSC.
- Due care taken for accuracy.
- Fully explained and well-illustrated solutions.
- Opportunity to evaluate yourself on All India Basis.

Streams: CE, ME, EE, E&T

ESE 2020 Prelims Classroom Test Series

Commencing from 29th Sep, 2019

Total 26 Tests

Paper-I: 13 Tests GS & Engineering Aptitude

- 8 Multiple Subject Tests
 of 50 Questions 400 Ques
 (Time: 60 minutes)
- 5 Full Syllabus Tests of 100 Questions 500 Ques (Time: 120 minutes)

Paper-II: 13 Tests

Engineering Discipline

- 8 Multiple Subject Tests of 75 Questions 600 Ques (Time: 90 minutes)
- 5 Full Syllabus Tests of 150 Questions 750 Ques (Time: 180 minutes)

Total:

2250 Questions

Every question carries 2 marks

Negative marking = 2/3 marks

Civil Engineering

Test No.	Date/Day	Time		Subject	Marks
1		3:00 PM to	Section A : New Topic	Reasoning & Aptitude (All Topics)	100
	29 th Sep, 2019	4:00 PM	Section B : New Topic	Engineering Mathematics (All Topics)	100
2	Sunday	4:00 PM to	Section A: New Topic	Geo-technical & Foundation Engineering (All Topics)	
2.		5:30 PM	Section B : New Topic	Environmental Engineering (All Topics)	150
			Section A: New Topic	Basics of Energy and Environment (All Topics)	
3 .		3:00 PM to 4:00 PM	Section B : New Topic	Basics of Material Science (All Topics)	100
	6 th Oct, 2019		Section C : Repeat Topic of Test 1	Engineering Mathematics + Reasoning & Aptitude (All Topics)	
	Sunday		Section A: New Topic	Solid Mechanics (All Topics)	
4.		4:00 PM to 5:30 PM	Section B : Repeat Topic of Test 2	Geo-technical & Foundation Engineering - 1 (Part Syllabus) Topics: Properties of soil, classification, various tests and inter-relationships; permeability and seepage, compressibility, consolidation and shearing resistance, earth pressure theories and stress distribution in soil	150
			Section C : Repeat Topic of Test 2	Environmental Engineering -1 (Part Syllabus) Topics: Water supply Engineering, Air, Noise pollution and ecology	
		3:00 PM to 4:00 PM	Section A: New Topic	General Principles of Design, Drawing, Importance of Safety (All Topics)	
5 .			Section B: Repeat Topic of Test 3	Basics of Energy and Environment (All Topics)	100
			Section C : Repeat Topic of Test 3	Basics of Material Science (All Topics)	
	13 th Oct, 2019		Section A: New Topic	Design of Steel Structure (All Topics) + Surveying and Geology (All Topics)	
6.	Sunday		Section B: Repeat Topic of Test 4	Solid Mechanics - 1 (Part Syllabus) Topics: Properties of Materials, Simple Stress-strain and elastic constants, Plain Stress-strain, Mohr circle of stress and strain, Bending stress, SFD & BMD	150
U.		5:30 PM	Section C : Repeat Topic of Test 2	Geo-technical & Foundation Engg 2 (Part Syllabus) Environmental Engg 2 (Part Syllabus) Topics: Soil exploration - planning and methods, properties and uses of geo-synthetics, types of foundations and selection criteria, bearing capacity, settlement analysis, design and testing of shallow and deep foundations; slope stability analysis, earthen embankments, dams and earth retaining structure: types, analysis and design, Principles of ground modifications + Topics: Waste water engg, soild waste management	130
			Section A: New Topic	Basics of Project Management (All Topics)	1
7.		3:00 PM to 4:00 PM	Section B : Repeat Topic of Test 5	General Principles of Design, Drawing, Importance of Safety (All Topics)	100
			Section C : Repeat Topic of Test 3	Basics of Energy and Environment (All Topics)	
	20 th Oct, 2019 Sunday		Section A: New Topic	CPM PERT + Hydrology and Water Resource Engineering (All Topics)	
8.	•	4:00 PM to 5:30 PM	Section B : Repeat Topic of Test 6	Design of Steel Structure - 1 (Part Syllabus) + Surveying and Geology - 1 (Part Syllabus) Topics: Steel: Connections, Tension Members, Compression Members; Surveying & Geology: Classification of surveys, various methodologies, instruments and analysis of measurement of distances, elevation and directions	150
			Section C : Repeat Topic of Test 4	Solid Mechanics - 2 (Part Syllabus) Topics: Torsion, Principle stress, theories of failure & shear stress	



Test No.	Date/Day	Time		Subject	Marks
			Section A: New Topic	Ethics and values in Engineering profession (All Topics)	
9.		3:00 PM to 4:00 PM	Section B : Repeat Topic of Test 7	Basics of Project Management (All Topics)	100
-		4.00 1 101	Section C : Repeat Topic of Test 5	General Principles of Design, Drawing, Importance of Safety (All Topics)	
			Section A: New Topic	Structural Analysis (All Topics)	
10.	3 rd Nov, 2019 Sunday	4:00 PM to 5:30 PM	Section B : Repeat Topic of Test 8	CPM PERT -1 (Part Syllabus) + Hydrology and Water Resource Engineering - 1 (Part Syllabus) Topics: Construction - Planning, Equipment, Site investigation and Management including Estimation with latest project management tools and network analysis for different Types of works;+ Hydrological cycle, Ground water hydrology, Well hydrology and related data analysis; Streams and their gauging; River morphology; Flood, drought and their management; Capacity of Reservoirs.	150
			Section C : Repeat Topic of Test 6	Design of Steel Structure - 2 (Part Syllabus) + Surveying and Geology - 2 (Part Syllabus) Topics: Steel: Plastic Analysis, Beams, Columns bases, Plate Girder, Gantry girder, roof trusses; Survey & Geology: Field astronomy, Global Positioning systems; Map Layout for culverts, canals, bridges, road/railway alignmet and buildings, setting out of curves; Basic knowledge of Engineering geology and its application in projects	
			Section A: New Topic	Information and Communication Technologies (ICT) (All Topics)	
11.		3:00 PM to	Section B : Repeat Topic of Test 9	Ethics and values in Engineering profession (All Topics)	100
•••		4:00 PM	Section C : Repeat Topic of Test 7	Basics of Project Management (All Topics)	
			Section A: New Topic	Design of concrete and Masonry Structures (All Topics)	
	10 th Nov, 2019		Section B : Repeat Topic of Test 10	Structural Analysis - 1 (Part Syllabus)	
	Sunday			Topics: Analysis of determinate and indeterminate structures (beams and plane frames only), suspended cables	
12.		4:00 PM to 5:30 PM	Section C : Repeat Topic of Test 8	CPM PERT -2 (Part Syllabus) + Hydrology and Water Resource Engineering - 2 (Part Syllabus) Topics: Analysis of Rates of various types of works; Tendering Process and Contract Management, Quality Control, Productivity, Operation Cost; Land acquisition; Labour safety and welfare.+ Water Resources Engineering: Multipurpose uses of Water, River basins and their potential; Irrigation systems, water demand assessment; Resources storages and their yields; Water logging, canal and drainage design, Gravity dams, falls, weirs, Energy dissipaters, barrage Distribution works, Cross drainage works and head-works and their design; Concepts in canal design, construction & maintenance; River training, measurement and analysis of rainfall.	150
	17 th Nov, 2019 Sunday	3:00 PM to 4:00 PM	Section A: New Topic	Standards and Quality practices in production, construction, maintenance and services (All Topics)	
13.			Section B : Repeat Topic of Test 11	Information and Communication Technologies (ICT) (All Topics)	100
			Section C : Repeat Topic of Test 9	Ethics and values in Engineering profession (All Topics)	
			Section A: New Topic	Flow of fluids, hydraulic machines and hydro power (All Topics)	1
14.		4:00 PM to 5:30 PM	Section B : Repeat Topic of Test 12	Design of concrete and Masonry Structures - 1 (Part Syllabus) Topics: Limit state design for bending, shear, axial compression and combined forces; design of beams, Lintels, Tanks and staircases.	150
			Section C : Repeat Topic of Test 10	Structural Analysis - 2 (Part Syllabus) Topics: Analysis of determinate and indeterminate trusses, rolling loads, influence lines, free and forced vibrations ' or single degree and multiple degree freedom system, concept and use of computer aided design (matrix analysis)	
			Section A: New Topic	Current issues of national and international importance relating to social, economic and industrial development (All Topics)	
15.		3:00 PM to 4:00 PM	Section B : Repeat Topic of Test 13	Standards and Quality practices in production, construction, maintenance & services (All Topics)	100
		4:00 PW	Section C : Repeat Topic of Test 11	Information and Communication Technologies (ICT) (All Topics)	
	24 th Nov, 2019 Sunday		Section A: New Topic	Transportation Engineering + Building Materials (All Topics)	
	Sullday		Section B : Repeat Topic of Test 14	Flow of fluids, hydraulic machines and hydro power (All Topics)	_
16.		4:00 PM to 5:30 PM	Section C : Repeat Topic of Test 12	Design of concrete and Masonry Structures - 2 (Part Syllabus) Topics: Design of slabs, foundations and retaining walls; Principles of pre-stressed concrete design including materials and methods; Earthquake resistant design of structures, design of Masonry structure	150
17.		9AM-11AM	Full Syllabus Test 1	Paper- I	200
Q	1 st Dec, 2019 Sunday	11:30 PM	Full Syllabus Test 2		·
IU.		to 2:30 PM	<u> </u>	Paper I	300
19.	8 th Dec, 2019 Sunday	9AM-11AM 11:30 PM	Full Syllabus Test 3	Paper- I	200
20.	201100	to 2:30 PM	Full Syllabus Test 4	Paper- II	300
21.	15 th Dec, 2019	9AM-11AM	Full Syllabus Test 5	Paper- I	200
22.	Sunday	11:30 PM to 2:30 PM	Full Syllabus Test 6	Paper- II	300
23.	20 th Dec, 2019	9AM-11AM	Full Syllabus Test 7	Paper- I	200
24.	Friday	11:30 PM to 2:30 PM	Full Syllabus Test 8	Paper- II	300
25.	aand D	9AM-11AM	Full Syllabus Test 9	Paper- I	200
26.	22 nd Dec, 2019 Sunday	11:30 PM	Full Syllabus Test 10	Paper- II	300





If case of any discrepancy, students can challenge the solutions provided by MADE EASY, by logging onto our website.

All Tests (Excluding Test no. 23 & 24):
The solution challenging link will be active from
Sunday - 9:00 pm to Monday - 6:00 pm

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Paper-II: 13 Tests

Engineering Discipline

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Total:

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Mechanical Engineering

Test No.	Date/Day	Time		Subject	Marks
4		6:30 PM to	Section A : New Topic	Reasoning & Aptitude (All Topics)	100
١.	anth C and a	7:30 PM	Section B : New Topic	Engineering Mathematics (All Topics)	100
0	29 th Sep, 2019 Sunday	7:30 PM to	Section A: New Topic	Thermodynamics (All Topics)	
2.		9:00 PM	Section B : New Topic	Refrigeration and Air-conditioning (All Topics)	150
			Section A: New Topic	Basics of Energy and Environment (All Topics)	
3.		6:30 PM to 7:30 PM	Section B : New Topic	Basics of Material Science (All Topics)	100
			Section C : Repeat Topic of Test 1	Engineering Mathematics + Reasoning & Aptitude (All Topics)	-1
	6 th Oct, 2019		Section A: New Topic	Production Engineering & Material Science (All Topics)	
4.	Sunday	7:30 PM to 9:00 PM	Section B : Repeat Topic of Test 2	Thermodynamics - 1 (Part Syllabus) Topics: Thermodynamic systems and processes; properties of pure substance; Zeroth, First and Second Laws of Thermodynamics; Entropy.	150
			Section C : Repeat Topic of Test 2	Refrigeration and Air-conditioning - 1 (Part Syllabus) Vapour compression refrigeration, Refrigerants and Working cycles, Compressors, Condensers, Evaporators and Expansion devices, Other types of refrigeration systems like Vapour Absorption	
	13 th Oct, 2019 Sunday	6:30 PM to 7:30 PM	Section A: New Topic	General Principles of Design, Drawing, Importance of Safety (All Topics)	100
5 .			Section B: Repeat Topic of Test 3	Basics of Energy and Environment (All Topics)	
			Section C : Repeat Topic of Test 3	Basics of Material Science (All Topics)	
		7:30 PM to	Section A: New Topic	Fluid Mechanics and Turbo Machinery (All Topics)	
6.			Section B : Repeat Topic of Test 4	Production Engineering & Material Science - 1 (Part Syllabus) Topics: Metal joining, metal casting-Metal forming, computer Integrated manufacturing, Basic Crystallography, Heat Treatment, Ferrous and Non Ferrous Metals, Non metallic materials,	150
U.		9:00 PM	Section C : Repeat Topic of Test 2	Thermodynamics - 2 (Part Syllabus) + Refrigeration and Air-conditioning - 2 (Part Syllabus) Topics: Irreversibility and availability, Otto, Diesel and Dual cycles, analysis of thermodynamic cycles related to energy conversion: ideal and real gases; compressibility factor; Gas mixtures + Vapour jet, thermo electric and Vortex tube refrigeration. Psychometric properties and processes, Comfort chart, Comfort and industrial air conditioning, Load calculations and Heat pumps	
			Section A: New Topic	Basics of Project Management (All Topics)	
7 .		6:30 PM to 7:30 PM	Section B : Repeat Topic of Test 5	General Principles of Design, Drawing, Importance of Safety (All Topics)	100
			Section C : Repeat Topic of Test 3	Basics of Energy and Environment (All Topics)	
	20 th Oct, 2019		Section A: New Topic	Heat Transfer (All Topics) + IC Engines (All Topics)	
8.	Sunday	7:30 PM to 9:00 PM	Section B: Repeat Topic of Test 6	Fluid Mechanics and Turbo Machinery - 1 (Part Syllabus) Topics: Basic Concepts and Properties of Fluids, Manometry, Fluid Statics, Buoyancy, Equations of Motion, Bernoulli's equation and applications + Reciprocating and Rotary pumps, Pelton wheel, Kaplan and Francis Turbines, velocity diagrams, Impulse and Reaction principles	150
			Section C : Repeat Topic of Test 4	Production Engineering & Material Science - 2 (Part Syllabus) Topics: Machining and machine tool operations, Limits, fits and tolerances, Metrology and inspection + Alloys and Phase diagrams, Basics of Nano-materials, Mechanical Properties & Testing, Corrosion prevention & Control	



est No.	Date/Day	Time		Subject	Mark
			Section A: New Topic	Ethics and values in Engineering profession (All Topics)	
9 .		6:30 PM to 7:30 PM	Section B : Repeat Topic of Test 7	Basics of Project Management (All Topics)	100
		7.5011	Section C : Repeat Topic of Test 5	General Principles of Design, Drawing, Importance of Safety (All Topics)	
	3 rd Nov, 2019		Section A: New Topic	Strength of Materials & Engineering Mechanics (All Topics)	1
ın	Sunday	7:30 PM to	Section B: Repeat Topic of Test 8	Heat Transfer - 1 (Part Syllabus) + IC Engine - 1 (Part Syllabus) Topics: Modes of heat transfer, Steady and unsteady heat conduction, Thermal resistance, Fins, Free and forced convection, Correlations for convective heat transfer + SI and CI Engines, Engine Systems and Components.	150
0.		9:00 PM	Section C : Repeat Topic of Test 6	Fluid Mechanics and Turbo Machinery - 2 (Part Syllabus) Topics: Viscous flow of incompressible fluids, Laminar and Turbulent flows, Flow through pipes and head losses in pipes. + Steam and Gas Turbines, Theory of Jet Propulsion – Pulse jet and Ram Jet Engines, Reciprocating and Rotary Compressors – Theory and Applications	
			Section A: New Topic	Information and Communication Technologies (ICT) (All Topics)	
1		6:30 PM to	Section B : Repeat Topic of Test 9	Ethics and values in Engineering profession (All Topics)	100
•••		7:30 PM	Section C : Repeat Topic of Test 7	Basics of Project Management (All Topics)	
	10 th Nov, 2019		Section A: New Topic	Theory of Machines (All Topics)	1
	Sunday			· · · · · · · · · · · · · · · · · · ·	-
2.		7:30 PM to 9:00 PM	Section B : Repeat Topic of Test 10	Strength of Materials & Engineering Mechanics - 1 (Part Syllabus) Topics: Stresses and Strains-Compound Stresses and Strains, Bending Moment and Shear Force Diagrams, Thin and thick Cylinders, Spheres. + Analysis of System of Forces,	150
			Section C : Repeat Topic of Test 8	Heat Transfer - 2 (Part Syllabus) + IC Engine - 2 (Part Syllabus) Topics: Radiative heat transfer, Radiation heat transfer coefficient; boiling & condensation, Heat exchanger performance analysis + Performance characteristics and testing of IC Engines; Fuels; Emissions and Emission Control.	
			Section A: New Topic	Standards and Quality practices in production, construction, maintenance and services (All Topics)	
3.		6:30 PM to 7:30 PM	Section B: Repeat Topic of Test 11	Information and Communication Technologies (ICT) (All Topics)	100
		7:30 PM	Section C : Repeat Topic of Test 9	Ethics and values in Engineering profession (All Topics)	
	17 th Nov, 2019 Sunday		Section A: New Topic	Renewable Sources of Energy + Industrial and Maintenance Engineering (All Topics) Robotics & Mechatronics	
4.		7:30 PM to 9:00 PM	Section B : Repeat Topic of Test 12	Theory of Machines - 1 (Part Syllabus) Topics: Types of Kinematics Pair & analysis Mobility, Inversions, Velocity & Acceleration Analysis of Planar Mechanisms, Dynamic Analysis - Slider - crank mechanisms, turning moment computations, flywheel, Governors, Free and forced vibration of undamped and damped SDOF systems, Transmissibility Ratio, Vibration Isolation, Critical Speed of Shafts.	150
			Section C : Repeat Topic of Test 10	Strength of Materials & Engineering Mechanics - 2 (Part Syllabus) Topics: Theory of Bending Stresses, Slope and deflection, Torsion, Friction, Centroid and Centre of Gravity.	
		6:30 PM to 7:30 PM	Section A: New Topic	Current issues of national and international importance relating to social, economic and industrial development (All Topics)	
5 .			Section B : Repeat Topic of Test 13	Standards and Quality practices in production, construction, maintenance & services (All Topics)	100
			Section C : Repeat Topic of Test 11	Information and Communication Technologies (ICT) (All Topics)	
	24 th Nov, 2019		Section A: New Topic	Machine Design + Power Plant Engineering (All Topics)	1
c	Sunday	7:30 PM to	Section B : Repeat Topic of Test 14	Renewable Sources of Energy + Industrial and Maintenance Engineering (All Topics) Robotics & Mechatronics	150
6.		9:00 PM	Section C : Repeat Topic of Test 12	Theory of Machines - 2 (Part Syllabus) Topics: CAMs with uniform acceleration and retardation, cycloidal motion, oscillating followers; Gears – Geometry of tooth profiles, Law of gearing, Involute profile, Interference, Helical, Spiral and Worm Gears, Gear Trains- Simple, compound & Epicyclic; balancing of Revolving & Reciprocating masses, Gyroscopes & its effect on automobiles, ships & aircrafts,	150
7.	1 st Dec, 2019	3PM-5 PM	Full Syllabus Test 1	Paper- I	200
8.	Sunday	5:30 PM to 8:30 PM	Full Syllabus Test 2	Paper- II	300
9.	8 th Dec, 2019	3PM-5 PM	Full Syllabus Test 3	Paper- I	200
0.	Sunday	5:30 PM to 8:30 PM	Full Syllabus Test 4	Paper- II	300
1.	4 eth e	3PM-5 PM	Full Syllabus Test 5	Paper- I	200
2.	15 th Dec, 2019 Sunday	5:30 PM to 8:30 PM	Full Syllabus Test 6	Paper- II	300
3.		3PM-5 PM	Full Syllabus Test 7	Paper- I	200
24.	20 th Dec, 2019 Friday	5:30 PM to 8:30 PM	Full Syllabus Test 8	Paper- II	300
5.	and -	3PM-5 PM	Full Syllabus Test 9	Paper- I	200
	22 nd Dec, 2019	5:30 PM			





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Paper-II: 13 Tests

Engineering Discipline

- 8 Multiple Subject Tests of 75 Questions 600 Ques (Time: 90 minutes)
- 5 Full Syllabus Tests of 150 Questions 750 Ques (Time: 180 minutes)

Total:

2250 Questions

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Electrical Engineering

Test No.	Date/Day	Time		Subject	Marks
4		3:00 PM to	Section A : New Topic	Reasoning & Aptitude (All Topics)	
1.	29 th Sep, 2019	4:00 PM	Section B : New Topic	Engineering Mathematics (All Topics)	100
0	Sunday	4:00 PM to	Section A: New Topic	Electrical Circuits (All Topics)	
2.		5:30 PM	Section B : New Topic	Digital Electronics + Microprocessors (All Topics)	150
			Section A: New Topic	Basics of Energy and Environment (All Topics)	
3.		3:00 PM to 4:00 PM	Section B : New Topic	Basics of Material Science (All Topics)	100
			Section C : Repeat Topic of Test 1	Engineering Mathematics + Reasoning & Aptitude (All Topics)	
	6 th Oct, 2019 Sunday		Section A: New Topic	Control Systems + Engineering Mathematics (All Topics)	
4.	Junuay	4:00 PM to 5:30 PM	Section B : Repeat Topic of Test 2	Electrical Circuits - 1 (Part Syllabus) Topics: Circuit elements, KCL, KVL, Node and Mesh analysis, ideal current and voltage sources, Thevenin's, Norton's, Superposition and Maximum Power Transfer theorems, Sinusoidal steady state analysis. Transient response of DC and AC networks,	150
			Section C : Repeat Topic of Test 2	Digital Electronics -1 + Microprocessors - 1 (Part Syllabus) Boolean Algebra, Logic gates, Combinational circuits and multiplexers + Microprocessor basics- interfaces and applications.	
		3:00 PM to 4:00 PM 4:00 PM to 5:30 PM	Section A: New Topic	General Principles of Design, Drawing, Importance of Safety (All Topics)	
5 .			Section B : Repeat Topic of Test 3	Basics of Energy and Environment (All Topics)	100
			Section C : Repeat Topic of Test 3	Basics of Material Science (All Topics)	
	13 th Oct, 2019		Section A: New Topic	Electrical Machines (All Topics)	
6.	Sunday		Section B : Repeat Topic of Test 4	Control Systems - 1 + Engineering Mathematics - 1 (Part Syllabus) Topics: Principles of feedback, transfer function, block diagrams and signal flow graphs, transient response analysis, steady-state errors, transforms and their applications; Routh-hurwitz criterion, root loci + Matrix theory, Eigen values & Eigen vectors, system of linear equations, Numerical methods for solution of non-linear algebraic equations & differential equations, integral calculus, partial derivatives, maxima &minima, Line, Surface & Volume Integrals.	150
			Section C : Repeat Topic of Test 2	Electrical Circuits - 2 + Digital Circuits - 2 (Part Syllabus) Topics: Basic filter concepts, two-port networks, Network graphs, Magnetically coupled circuits + Sequential logic circuits, multivibrators, sample and hold circuits and A/D-D/A converters.	
			Section A: New Topic	Basics of Project Management (All Topics)	
7.		3:00 PM to 4:00 PM	Section B : Repeat Topic of Test 5	General Principles of Design, Drawing, Importance of Safety (All Topics)	100
			Section C : Repeat Topic of Test 3	Basics of Energy and Environment (All Topics)	
	20 th Oct. 2010		Section A: New Topic	Power Systems (All Topics)	
	20 th Oct, 2019 Sunday	19	Section B : Repeat Topic of Test 6	Electrical Machines - 1 (Part Syllabus) Topics: 1-phase & 3-phase transformers - connections, parallel operation, auto-transformer, energy conversion principles, Induction motors - principles, types, performance characteristics, starting and speed control, servo and stepper motors.	,
8.		4:00 PM to 5:30 PM	Section C : Repeat Topic of Test 4	Control Systems - 2 + Engineering Mathematics - 2 (Part Syllabus) Topics: Nyquist techniques, Bode plots, lag, lead and lead-lag compensation, stability analysis, frequency response analysis, state space model, state transition matrix, controllability and observability, linear state variable feedback, PID and industrial controllers + Fourier series, linear, nonlinear and partial differential equations, initial and boundary value problems, complex variables, Taylor's and Laurent's series, residue theorem, probability and statistics fundamentals, Sampling theorem, random variables, Normal and Poisson distributions, correlation and regression analysis.	150



Test No.	Date/Day	Time		Subject	Marks
			Section A: New Topic	Ethics and values in Engineering profession (All Topics)	
9.		3:00 PM to 4:00 PM	Section B : Repeat Topic of Test 7	Basics of Project Management (All Topics)	100
			Section C : Repeat Topic of Test 5	General Principles of Design, Drawing, Importance of Safety (All Topics)	
			Section A: New Topic	Power Electronics and Drives (All Topics)	
10.	3 rd Nov, 2019 Sunday	4:00 PM to 5:30 PM	Section B: Repeat Topic of Test 8	Power Systems - 1 (Part Syllabus) Topics: Basic power generation concepts, steam, gas and water turbines, transmission line models and performance, cable performance, insulation, corona and radio interference, power factor correction, Radial and ring-main distribution systems, voltage control and economic operation, HVDC transmission and FACTS, distributed generation, solar and wind power, smart grid concepts, environmental implications, fundamentals of power economics.	150
			Section C : Repeat Topic of Test 6	Electrical Machines - 2 (Part Syllabus) Topics: DC machines - types, windings, generator characteristics, armature reaction and commutation, starting and speed control of motors, Synchronous machines - performance, regulation, parallel operation of generators, motor starting, characteristics and applications	
			Section A: New Topic	Information and Communication Technologies (ICT) (All Topics)	
11.		3:00 PM to 4:00 PM	Section B : Repeat Topic of Test 9	Ethics and values in Engineering profession (All Topics)	100
			Section C : Repeat Topic of Test 7	Basics of Project Management (All Topics)	
	10 th Nov, 2019		Section A: New Topic	BEE + Analog Electronics + Electrical & Electronic Measurements (All Topics)	
12.	Sunday	4:00 PM to 5:30 PM	Section B : Repeat Topic of Test 10	Power Electronics and Drives -1 (Part Syllabus) Topics: Semiconductor power diodes, transistors, thyristors, triacs, GTOs, MOSFETs and IGBTs - static characteristics and principles of operation, triggering circuits, phase control rectifiers, bridge converters: fully controlled and half controlled	150
			Section C : Repeat Topic of Test 8	Power Systems - 2 (Part Syllabus) Topics: symmetrical components, fault analysis, Matrix representation of power systems, load flow analysis, System stability concepts, Swing curves and equal area criterion. Concepts of power system dynamics, Principles of protection systems, basics of solid state relays and digital protection; Circuit breakers.	
			Section A: New Topic	Standards and Quality practices in production, construction, maintenance and services (All Topics)	
13.		3:00 PM to 4:00 PM	Section B: Repeat Topic of Test 11	Information and Communication Technologies (ICT) (All Topics)	100
			Section C : Repeat Topic of Test 9	Ethics and values in Engineering profession (All Topics)	
		4:00 PM to 5:30 PM	Section A: New Topic	Systems & Signal Processing + Communication Systems (All Topics)	
14.	17 th Nov, 2019 Sunday		Section B : Repeat Topic of Test 12	BEE-1 + Analog Electronics - 1 + Electrical & Electronic Measurements - 1 (Part Syllabus) Topics: Basics of semiconductor diodes and transistors characteristics, junction and field effect transistors (BJT, FET, and MOSFETs) + Operational amplifiers-characteristics and applications + Principles of measurement, accuracy, precision and standards; Bridges and potentiometers; moving coil, moving iron, dynamometer and induction type instruments, measurement of voltage, current, power energy and power factor.	150
			Section C : Repeat Topic of Test 10	Power Electronics & Drives - 2 (Part Syllabus) Topics: Principles of choppers and inverters, basis concepts of adjustable speed dc and ac drives, DC-DC switched mode converters, DC-AC switched mode converters, resonant converters, high frequency inductors and transformers, power supplies.	
		3:00 PM to 4:00 PM	Section A: New Topic	Current issues of national and international importance relating to social, (All Topics) economic and industrial development	
15 .			Section B : Repeat Topic of Test 13	Standards and Quality practices in production, construction, maintenance & services (All Topics)	100
			Section C : Repeat Topic of Test 11	Information and Communication Technologies (ICT) (All Topics)	
	24 th Nov, 2019		Section A: New Topic	Electromagnetic Theory + Computer Fundamentals + Electrical Materials (All Topics)	
	Sunday		Section B : Repeat Topic of Test 14	Systems & Signal Processing + Communication Systems (All Topics)	
16.		4:00 PM to 5:30 PM	Section C : Repeat Topic of Test 12	BEE - 2 + Analog Electronics - 2 (Part Syllabus) + Electrical & Electronic Measurements - 2 (Part Syllabus) Topics: Different types of transistor amplifiers, equivalent circuits and frequency response, oscillators and other circuits, feedback amplifiers + Basics of filter circuits and applications, simple active filters, basics of linear integrated circuits + Instrument transformers, digital voltmeters and multi-meters, phase, time and frequency measurement, q-meters, oscillosocopes, potentiometric recorders, error analysis, basics of sensors, transducers, basics of data acquisition systems,	150
17.	1 st D = 2010	9AM-11AM	Full Syllabus Test 1	Paper- I	200
18.	1 st Dec, 2019 Sunday	11:30 PM to 2:30 PM	Full Syllabus Test 2	Paper- II	300
19.	th -	9AM-11AM	Full Syllabus Test 3	Paper- I	200
20.	8 th Dec, 2019 Sunday	11:30 PM to 2:30 PM	Full Syllabus Test 4	Paper- II	300
21.		9AM-11AM	Full Syllabus Test 5	Paper- I	200
22.	15 th Dec, 2019 Sunday	11:30 PM to 2:30 PM	Full Syllabus Test 6	Paper- II	300
2 3 .	20 th D	9AM-11AM	Full Syllabus Test 7	Paper- I	200
24.	20 th Dec, 2019 Friday	11:30 PM to 2:30 PM	Full Syllabus Test 8	Paper- II	300
_					1
25.	22 nd Dec, 2019	9AM-11AM	Full Syllabus Test 9	Paper- I	200





If case of any discrepancy, students can challenge the solutions provided by MADE EASY, by logging onto our website.

All Tests (Excluding Test no. 23 & 24): The solution challenging link will be active from

Sunday - 9:00 pm to Monday - 6:00 pm

Test no. 23 & 24:

The solution challenging link will be active from Friday - 9:00 pm to Saturday - 6:00 pm



India's Best Institute for IES, GATE & PSUs

Key Features:

- Dynamic test series for cyclic revision of subjects.
- Tests are time tabled with "New Topics" and "Repeat Topics" to maintain the continuity and a perfect balance between tech and non tech subjects.
- Test series contains 13 tests from Paper I (GS and Engineering Aptitude) and 13 tests from Paper-II (Engineering Discipline).
- Quality Questions as per latest trend of UPSC.
- Due care taken for accuracy.
- Fully explained and well-illustrated solutions.
- Opportunity to evaluate yourself on All India Basis.

Streams: CE, ME, EE, E&T

ESE 2020 Prelims Classroom Test Series

Commencing from 29th Sep, 2019

Total 26 Tests

Paper-I: 13 Tests **GS & Engineering Aptitude**

- 8 Multiple Subject Tests of 50 Questions 400 Ques (Time: 60 minutes)
- 5 Full Syllabus Tests of 100 Questions 500 Ques (Time: 120 minutes)

Paper-II: 13 Tests

Engineering Discipline

- 8 Multiple Subject Tests of 75 Questions 600 Ques (Time: 90 minutes)
- 5 Full Syllabus Tests of 150 Questions 750 Ques (Time: 180 minutes)

Total: 2250 Questions

Every question carries 2 marks • Negative marking = 2/3 marks

Electronics & Telecom Engg.

Test No.	Date/Day	Time		Subject	Marks
4		6:30 PM to	Section A : New Topic	Reasoning & Aptitude (All Topics)	100
I.	29 th Sep, 2019	7:30 PM	Section B : New Topic	Engineering Mathematics (All Topics)	100
9	Sunday	7:30 PM to	Section A: New Topic	Network Theory (All Topics)	150
Z.		9:00 PM	Section B : New Topic	Digital Circuits (All Topics)	150
			Section A: New Topic	Basics of Energy and Environment (All Topics)	
3 .		6:30 PM to 7:30 PM	Section B : New Topic	Basics of Material Science (All Topics)	100
			Section C : Repeat Topic of Test 1	Engineering Mathematics + Reasoning & Aptitude (All Topics)	
	6 th Oct, 2019 Sunday		Section A: New Topic	Control Systems + Microprocessors and Microcontroller (All Topics)	_
4.	Sunday	7:30 PM to 9:00 PM	Section B: Repeat Topic of Test 2	Network Theory - 1 (Part Syllabus) Topics: Ohm's & Kirchoff's laws, Wye-Delta transformation, mesh & nodal analysis, DC circuits. Single-phase AC circuits, Steady state sinusoidal analysis, frequency domain analysis of RLC circuits. Circuit theorems. Linear constant coefficient differential equations - Time domain analysis of RLC circuits, Solution of network equations using Laplace transforms.	150
			Section C : Repeat Topic of Test 2	Digital Circuits - 1 (Part Syllabus) Topics: Boolean Algebra & uses, Logic gates, Combinatorial circuits design applications, Basics of multiplexers. MUX/ROM/PLA based design.	
		6:30 PM to 7:30 PM	Section A: New Topic	General Principles of Design, Drawing, Importance of Safety (All Topics)	
5 .			Section B: Repeat Topic of Test 3	Basics of Energy and Environment (All Topics)	100
			Section C : Repeat Topic of Test 3	Basics of Material Science (All Topics)	
	13 th Oct, 2019 Sunday		Section A: New Topic	Electronic Devices & Circuits + Advanced Communication Topics (All Topics)	
6.		7:30 PM to 9:00 PM	Section B: Repeat Topic of Test 4	Control Systems - 1 (Part Syllabus) + Microprocessors and Microcontroller - 1 (Part Syllabus) Topics: Feedback systems-open &close loop types, Signal flow graphs. Transient and Steady state analysis. Stability analysis, Routh-Hurwitz criteria. Root loci + Microprocessors - basics, interrupts, instruction sets.	150
			Section C : Repeat Topic of Test 2	Network Theory - 2 (Part Syllabus) + Digital Circuits - 2 (Part Syllabus) Topics: 2-port network parameters-driving point & transfer functions. Network graphs & matrices. + Sequential circuits design& applications, counters, registers, memories, Moore & Mealy circuit design. Digital IC families. A/D-D/A converters.	
			Section A: New Topic	Basics of Project Management (All Topics)	
7.		6:30 PM to 7:30 PM	Section B: Repeat Topic of Test 5	General Principles of Design, Drawing, Importance of Safety (All Topics)	100
			Section C : Repeat Topic of Test 3	Basics of Energy and Environment (All Topics)	
	20 th Oct, 2019		Section A: New Topic	Analog and Digital Communication Systems (All Topics)	
8.	Sunday	7:30 PM to 9:00 PM	Section B : Repeat Topic of Test 6	Electronic Devices & Circuits - 1 (Part Syllabus) + Advanced Commu. Topics - 1 (Part Syllabus) Topics: Basics of semiconductors. Diode basics and characteristics, Diodes for different uses. Basics of Optoelectronics and its applications, Optical sources/detectors. + Fibre optic communication systems: fibre optics, theory, practice, standards, block schematics, link calculations, system design. Communication networks: Principles, practices, technologies, uses, OSI model, security. Basic packet multiplexed streams and scheduling, protocols (TCP/TCPIP).	150
			Section C : Repeat Topic of Test 4	Control Systems - 2 (Part Syllabus) + Microprocessors and Microcontroller - 2 (Part Syllabus) Topics: Frequency response analysis, Nyquist/Bode plots. Design of control systems, compensators, elements of lead/lag compensation, PID and industrial controllers. State equations for networks + DMA, peripheral interfacing, Microcontrollers & uses and Embedded systems.	



Test No.	Date/Day	Time		Subject	Marks
			Section A: New Topic	Ethics and values in Engineering profession (All Topics)	
9.		6:30 PM to 7:30 PM	Section B : Repeat Topic of Test 7	Basics of Project Management (All Topics)	100
		7.501 101	Section C : Repeat Topic of Test 5	General Principles of Design, Drawing, Importance of Safety (All Topics)	
	3 rd Nov, 2019		Section A: New Topic	Signals and Systems + Basic Electrical Engineering (All Topics)	
10	Sunday	7:30 PM to	Section B : Repeat Topic of Test 8	Analog & Digital Communication Systems - 1 (Part Syllabus) Topics: Random signals, noise, probability theory. Analog communication Systems - AM, FM, transmitters, receivers, theory, practice, standards, SNR comparison.	150
10.		9:00 PM	Section C : Repeat Topic of Test 6	Electronic Devices & Circuits-2 (Part Syllabus) + Advanced Communication Topics-2 (Part Syllabus) Topics: BJT, JFETs, MOSFETs basics and characteristics + Microwave & satellite communication: Terrestrial/space type LOS systems, block schematics link calculations, system design. Communication satellites, orbits, characteristics, systems, uses. Cellular networks, types, analysis.	
			Section A: New Topic	Information and Communication Technologies (ICT) (All Topics)	
11.		6:30 PM to 7:30 PM	Section B : Repeat Topic of Test 9	Ethics and values in Engineering profession (All Topics)	100
		7.501 101	Section C : Repeat Topic of Test 7	Basics of Project Management (All Topics)	
			Section A: New Topic	Analog Circuits + Electronic Measurements and Instrumentation (All Topics)	
12.	10 th Nov, 2019 Sunday	7:30 PM to 9:00 PM	Section B : Repeat Topic of Test 10	Signals and Systems - 1 (Part Syllabus) + Basic Electrical Engineering - 1 (Part Syllabus) Topics: Classification and Applications of signals and systems. CTFS, CTFT and their application to continuous time systems. Laplace transform, its applications and realization of continuous time systems + Electro-magnetism, Faraday's & Lenz's laws, induced EMF and its uses; DC machines, and synchronous machines; Electrical power sources- basics: hydroelectric, thermal, nuclear, wind, solar; Basics of batteries and their uses.	150
			Section C : Repeat Topic of Test 8	Analog & Digital Communication Systems - 2 (Part Syllabus) Topics: Information theory. Digital communication systems - Analog versus digital communication & applications, basics, sampling, quantizing, coding, PCM, DPCM, multiplexing-audio/video, Digital modulation: ASK, FSK, PSK. multiple accesses: TDMA, FDMA, CDMA.	
			Section A: New Topic	Standards and Quality practices in production, construction, maintenance and services (All Topics)	
13.	17 th Nov, 2019 Sunday	6:30 PM to 7:30 PM	Section B : Repeat Topic of Test 11	Information and Communication Technologies (ICT) (All Topics)	100
			Section C : Repeat Topic of Test 9	Ethics and values in Engineering profession (All Topics)	
		7:30 PM to 9:00 PM	Section A: New Topic	Electromagnetics + Computer Organization and Architecture (All Topics)	
14.			Section B : Repeat Topic of Test 12	Analog Circuits -1 (Part Syllabus) + Electronic Measurements and Instrumentation-1 (Part Syllabus) Topics: Diode circuits for different uses, Small signal equivalent circuits of diodes. Biasing & stability of BJT & JFET amplifier circuits. Small signal equivalent circuits of BJTS and FETs, single stage amplifiers + Principles of measurement, accuracy, precision and standards, Static/dynamic characteristics of measurement systems, errors, statistical analysis and curve fitting. Analog and Digital systems for measurement, measuring instruments for different applications.	150
			Section C : Repeat Topic of Test 10	Signals and Systems - 2 (Part Syllabus) + Basic Electrical Engineering - 2 (Part Syllabus) Topics: Discrete time Fourier transform, Discrete Fourier transform and their application to discrete time systems. Z-transform, its applications and realization of discrete time systems. Digital filters: FIR/IIR types, design, speech/audio/radar signal processing uses + Transformers, efficiency; induction machines.	
		6:30 PM to 7:30 PM	Section A: New Topic	Current issues of national and international importance relating to social, economic and industrial development	
15.			Section B : Repeat Topic of Test 13	Standards and Quality practices in production, construction, maintenance & services (All Topics)	100
			Section C : Repeat Topic of Test 11	Information and Communication Technologies (ICT) (All Topics)	
	24 th Nov, 2019 Sunday		Section A: New Topic	Advanced Electronics + Materials Science (All Topics)	
	Sunday		Section B : Repeat Topic of Test 14	Electromagnetics + Computer Organization and Architecture (All Topics)	
16.		7:30 PM to 9:00 PM	Section C : Repeat Topic of Test 12	Analog Circuits-2 (Part Syllabus) + Electronic Measurements and Instrumentation -2 (Part Syllabus) Topics: Multi-stage, Feedback amplifiers, oscillators and other circuits. Basics of linear ICs, operational amplifiers and their applications-linear & non-linear, Active filters, timers, multipliers, wave shaping + Measurement systems for non-electrical quantities, different types of transducers and displays. Basics of telemetry and data acquisition systems.	150
17.	1 st Dec, 2019	3PM-5 PM	Full Syllabus Test 1	Paper- I	200
18.	Sunday	5:30 PM to 8:30 PM	Full Syllabus Test 2	Paper- II	300
19.	8 th Dec, 2019	3PM-5 PM	Full Syllabus Test 3	Paper- I	200
20.	Sunday	5:30 PM to 8:30 PM	Full Syllabus Test 4	Paper- II	300
21.	th	3PM-5 PM	Full Syllabus Test 5	Paper- I	200
22.	15 th Dec, 2019 Sunday	5:30 PM to 8:30 PM	Full Syllabus Test 6	Paper- II	300
23.	20 th Dec, 2019	3PM-5 PM	Full Syllabus Test 7	Paper- I	200
24.	Friday	5:30 PM to 8:30 PM	Full Syllabus Test 8	Paper- II	300
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2 5 .	22 nd Dec, 2019	3PM-5 PM	Full Syllabus Test 9	Paper- I	200





If case of any discrepancy, students can challenge the solutions provided by MADE EASY, by logging onto our website.

All Tests (Excluding Test no. 23 & 24):
The solution challenging link will be active from
Sunday - 9:00 pm to Monday - 6:00 pm

Test no. 23 & 24:

Fee Structure

Non-MADE EASY students

Rs. 1,400 + GST

Ex. MADE EASY Students

Enrolled in Postal or any long term/ short term classroom course

Rs. 1,000 + GST

Current Session Students: 2019-2020

Enrolled in any long term/ short term classroom course

Nil

Other Details

- 1. All tests are scheduled on Sunday, except Test No. 23, 24 (Friday).
- 2. Answer key / Solution will be uploaded on the day of test.
- 3. Result of every test will be displayed on following Saturday (9.00 pm).
- 4. Result of Test No. 23 and 24 will be uploaded on next Saturday.

Details for Absentees

- Candidates are advised not to remain absent for tests. In case of any unavoidable circumstances he/she can appear for the test on following MONDAY. Absentees can appear test no. 23 & 24 on 21st Dec, 2019 (Saturday).
- Test timing for absentees: **1:00 pm to 3:30 pm** (Part syllabus tests) and **1:00 pm to 6:30 pm** (Full syllabus tests).
- **Delhi centre:** Students can appear at Sultanpur centre.
- Other centres: Students can appear at their respective centres.

	Tests Venue				
Centre	Streams	Tests Venue			
Delhi	All Streams	Test venue will be updated soon			
Jaipur	All Streams	Jaipur Centre : AB-559, Kings Road, Nirman Nagar, Jaipur, Rajasthan; Ph: 0141-4024612			
Noida	All Streams	Noida Centre : D-28, Sector-63, Noida, Uttar Pradesh; Ph: 8851176825			
Bhopal	All Streams	Bhopal Centre - II: Plot no. 32-33, Near ISBT, Hoshangabad Road, Bhopal; Ph: 0755-4004612			
Hyderabad	CE, ME	Kothapet : 17-9-133/2, Lakshmi Nagar,9/1/A, Kothapet 3rd Floor, Above Reliance Trends, Nr. Omni Hospital, Hyderabad - 500035			
	EE, E&T	Hyderabad Centre-I: 5-1-744, Bank Street, Koti, Hyderabad; Ph: 040-24652324			
Indore	All Streams	Indore Centre : Gemini Mall, Opp. C21 Mall, AB Road, Vijay Nagar, Indore; Ph: 07314029612			
Kolkata	All Streams	Kolkata Centre : 755, Anandapur, Next to Fortis Hospital, Off-EM Bypass, Kolkata; Ph: 033-68888880			
Bhubaneswar	All Streams	Bhubaneswar Centre: 1441, CRP Square, Opposite of IOCL Filling Station, Bhubaneswar-751015 Ph: 9040999888			
Pune	All Streams	Pune Centre : Plot No. 84, 2nd Floor, Business Bay Near RTO, Shivaji Nagar, Pune; Ph: 09168884343			
Patna	All Streams	Patna Centre : Nutan Complex, Near Krrish Hyundai, Main Road Kankarbagh, Patna; Ph: 0612-2356616			
Lucknow	All Streams	Lucknow Centre: B1/67, Sector P, Aliganj, Lucknow; Ph: 09919111168			