



MADE EASY

India's Best Institute for IES, GATE & PSUs

ANNOUNCES

SSC-JE 2020

Mains Test Series

CE

ME

EE

Commencing from 11th August, 2021

Total 15 Tests • Fee: Rs. 3,000/- • Streams: CE, ME, EE
Dynamic Test Series containing **Revision topics** and **New topics**

Features :

- The test series will be conducted in Online Mode at our test portal: www.studentportal.madeeasy.in
- Dynamic test series on every Wednesday having test of 2 hours as per pattern of SSC-JE.
- Test series contains Revision topics and New topics to maintain continuity in study.
- Facility to cross check the evaluated answer sheets at your dashboard.
- Access to answer sheets of top scorer of every test to compare your performance.

Note: The date sheet of test series might be changed if SSC announces to conduct the exam before 17th November, 2021.

[Click to register](#)

[Scroll down for schedule](#)

www.madeeasy.in

[011-45124612](tel:011-45124612), [9818098817](tel:9818098817)

Important Note

SSC-JE Mains Test Series

Test will be conducted on	>	Every Wednesday as per schedule
Test solutions will be uploaded on your dashboard	>	Every friday at 10:00 pm
Test results will be updated on on www.madeeasy.in	>	It will update automatically
Students can see their evaluated answer sheets at test series portal.		

Test Pattern

11
Subjectwise Tests

4
Full Syllabus Tests

15
Total Tests

Test 1-15

Total Marks : 300, Duration : 2 Hrs

STEPS FOR SSC-JE MAINS ONLINE TEST SERIES

- Visit: www.studentportal.madeeasy.in
- Log-in into the portal, using the credentials sent to you.
- Click on the **SSC-JE Mains 2020 Online Test Series** tab.
- Click on the **VIEW DETAILS** tab of your respective stream


SSC JE 2020 Mains Test Series Civil Engineering Starting from 11th August, 2021
No. of Tests : 15
Start Date : 11 st August, 2021 : 1:00 PM
End Date : 17 th Nov, 2021 : 11:59 PM
Price : ₹ 3,000
View Details
Buy Now Schedule



Scroll down for detailed schedule

- Click on **Go to test** button to download the question paper & QCAB (Question cum answer booklet) to write the test.

TEST-1
Paid Test
No. of Questions : 6
Max Marks : 300
Scheduled On : 11 th Aug, 2021, 1:00 PM
Submission Deadline : 12 th Aug, 2021
Go To Test

1. ME_Thermodymaic + RAC(Conv)_Q.pdf	 Download
1. ME_Thermodymaic + RAC(Conv)_QCAB.pdf	Download

- Write your Answers in QCAB or A4 size papers
- Scan the QCAB/ A4 size papers and combine it into a single PDF format. Make sure your PDF file is less than 100 MB.
- Click on **Upload Answer Sheet** button to upload the QCAB/A4 size papers against every question paper.



1. Please ensure to upload the scanned answer sheets within the submission deadline, else you will not be able to upload it on the Portal.
2. Please ensure to mention the question number and its sub-parts clearly on the left hand side of the page in the answer sheets. Also, mention your details like **NAME, ROLL NUMBER, TEST NUMBER** and **SUBJECT NAME** on the front page of the answer sheets.
3. After the evaluation, your evaluated answer sheets will be uploaded into your profile.

For any query, please feel free to email us at infodelhi@madeeasy.in



Scroll down for detailed schedule



MADE EASY
India's Best Institute for IES, GATE & PSUs

SSC-JE 2020

Mains Test Series

Civil Engineering

Total 15 Tests

11 Subjectwise Tests + 4 Full Syllabus Tests

Test No.	Date/Day	Max. Marks	Subject
1.	11 th Aug, 2021 Wednesday	300	New Topic Soil Mechanics-1 : Origin of soil, phase diagram, definitions - void ratio, porosity, degree of saturation, water content, specific gravity of soil grains, unit weights, density index and inter-relationship of different parameters, grain size distribution curves and their uses, index properties of soils, Atterberg's limits, IS1 soil classification and plasticity chart, permeability of soil, coefficient of permeability, determination of coefficient of permeability, unconfined and confined aquifers, effective stress, quick sand. Hydraulics-1 : Fluid properties, hydrostatics. Theory of Structures-1 : Elasticity constants, types of beams – determinate and indeterminate, bending moment and shear force diagram of simply supported, cantilever and overhanging beams.
2.	18 th Aug, 2021 Wednesday	300	New Topic RCC Design-1 : RCC beams, flexural strength, shear strength, bond strength, design of singly reinforced and doubly reinforced beams, cantilever beams, T-beams, lintels. Surveying-1 : Principle of surveying, measurement of distance, chain surveying, working of prismatic compass, compass traversing, bearings, local attraction. Building Materials : Physical and chemical properties, classification, standard tests, uses and manufacture/quarrying of materials, e.g., building stones, silicates based materials, cement (Portland), asbestos products, timber and wood based products, laminates, bituminous materials, paints, varnishes.
			Revision Topic Soil Mechanics-1 + Hydraulics-1
3.	25 th Aug, 2021 Wednesday	300	New Topic Soil Mechanics-2 : Consolidation of soils, principles of consolidation, degree of consolidation, pre-consolidation pressure, normally consolidated soil, e-logP curve, computation of ultimate settlement, shear strength of soils, direct shear test, vane shear test, triaxial test. Theory of Structure-2 : Moment of area and moment of inertia for rectangular and circular sections, bending stress and shear stress for tee, channel and compound sections, chimneys, dams and retaining walls, eccentric loads. Steel Design-1 : Steel design and construction of steel columns.
			Revision Topic RCC Design-1 + Surveying-1
4.	1 st Sep, 2021 Wednesday	300	New Topic Environmental Engineering-1 : Quality of water, source of water supply, purification of water, distribution of water. Transportation Engineering-1 : Highway engineering – cross-sectional elements, geometric design, types of pavements, pavement materials - aggregates and bitumen, different tests, design of flexible and rigid pavements - water bound macadem (WBM) and wet mix macadam (WMM), gravel road, bituminous construction, rigid pavement joint, pavement maintenance, highway drainage.
			Revision Topic Theory of Structure-1 + Building Materials
5.	8 th Sep, 2021 Wednesday	300	New Topic Irrigation Engineering-1 : Definition, necessity, benefits, ill-effects of irrigation, types and method of irrigation, hydrology - measurement of rainfall, runoff coefficient, rain gauge, losses from precipitation, evaporation, infiltration etc. Estimating, Costing and Valuation-1 : Estimate, glossary of technical terms, analysis of rates, methods and unit of measurement, items of work earthwork, brick work (modular and traditional bricks), RCC work, shuttering, timber work, painting, flooring, plastering, boundary wall, brick building, water tank, bar bending schedule, centre line method, mid-section formula, trapezoidal formula, Simpson's rule. Soil Mechanics-3 : Soil compaction, laboratory compaction test, maximum dry density and optimum moisture content, earth pressure theories, active and passive earth pressures, bearing capacity of soils, plate load test, standard penetration test.
			Revision Topic Theory of Structure-2 + Steel Design-1
6.	15 th Sep, 2021 Wednesday	300	New Topic RCC Design-2 : One way and two way slabs, isolated footings, reinforced brickworks, columns. Surveying-2 : Plane table surveying, theodolite traversing, adjustment of theodolite, levelling, definition of terms used in levelling, contouring, curvature and refraction correction, temporary and permanent adjustment of dumpy level, method of contouring, uses of contour map. Transportation Engineering-2 : Railway Engineering – components of permanent way - sleepers, ballast, fixtures and fastening, track geometry, points and crossings, track junctions, station and yards.
			Revision Topic Soil Mechanics-2 + Environmental Engineering-1
7.	22 nd Sep, 2021 Wednesday	300	New Topic Hydraulics-2 : Measurement of flow, Bernoulli's theorems and its applications, flow through pipes. Irrigation Engineering-2 : Water requirement of crops, duty, delta and base period, kharif and rabi crops, command area, time factor, crop ratio, overlap allowance, irrigation efficiencies, different types of canals, types of canal irrigation, loss of water in canals, canal lining - types and advantages. Theory of Structure-3 : Slope deflection of simply supported and cantilever beams, critical load and columns, torsion of circular sections.
			Revision Topic Soil Mechanics-3 + Transportation Engineering-1
8.	29 th Sep, 2021 Wednesday	300	New Topic Transportation Engineering-3 : Traffic Engineering - different traffic survey, speed - flow density and their inter-relationships, inter sections and interchanges, traffic signals, traffic operation, traffic signs and markings, road safety. Environmental Engineering-2 : Need of sanitation, sewerage system, circular sewer, oval sewer, sewer appurtenances, sewage treatment, surface water drainage. Concrete Technology : Properties, advantages and uses of concrete, cement aggregates, importance of water quality, water cement ratio, workability, mix design, storage, batching, mixing, placement, compaction, finishing and curing of concrete, quality control of concrete, hot weather and cold weather concreting, repair and maintenance of concrete structures.
			Revision Topic Irrigation Engineering-1 + RCC Design-2 + Surveying-2
9.	6 th Oct, 2021 Wednesday	300	New Topic Irrigation Engineering-3 : Shallow and deep walls, yield from a wall, weir and barrage, failure of weirs and permeable foundation, silt and scour, Kennedy's theory of critical velocity, Lacey's theory of uniform flow, definition of flood, causes and effects, methods of flood control, water logging, prevention measure, land reclamation, characteristics of affecting fertility of soils, purposes, methods, description of land and reclamation process, major irrigation projects in India. Environmental Engineering-3 : Solid Waste Management – Types, effects, engineered management system, air pollution - pollutants, causes, effects, control, noise pollution, cause, health effects, control. Steel Design-2 : Beams, roof trusses, plate girders.
			Revision Topic Hydraulics-2 + Theory of Structures-3 + Irrigation Engineering-2
10.	13 th Oct, 2021 Wednesday	300	New Topic RCC Design-3 : Staircases, retaining wall, water tank. Surveying-3 : Tacheometric survey, curve setting, earthwork calculation, advanced surveying equipment.
			Revision Topic Transportation Engineering-3 + Environmental Engineering-2 + Soil Mechanics-1, Soil Mechanics-2 + Theory of Structure-1 + Theory of Structure-2
11.	20 th Oct, 2021 Wednesday	300	New Topic Hydraulics-3 : Flow in open channels, weirs, flumes, spillways, pumps and turbines. Estimating, Costing and Valuation-2 : Cost estimate of septic tank, flexible pavements, tubewell, isolated and combined footings, steel truss, piles and pile-caps, valuation - value and cost, scrap value, salvage value, assessed value, sinking fund, depreciation and obsolescence, methods of valuation.
			Revision Topic RCC Design-2 + RCC Design-3 + Surveying-1 + Surveying-2 + Surveying-3 + Irrigation Engineering-3 + Environmental Engineering-3 + Building Materials + Hydraulics-1 + Hydraulics-2 + Theory of Structure-3.
12.	27 th Oct, 2021 Wednesday	300	Full Syllabus Test-1
13.	3 rd Nov, 2021 Wednesday	300	Full Syllabus Test-2
14.	10 th Nov, 2021 Wednesday	300	Full Syllabus Test-3
15.	17 th Nov, 2021 Wednesday	300	Full Syllabus Test-4

Note : RCC Design problems may be based on both working stress and limit state method.



MADE EASY
India's Best Institute for IES, GATE & PSUs

SSC-JE 2020

Mains Test Series

Electrical Engineering

Total 15 Tests

11 Subjectwise Tests + 4 Full Syllabus Tests

Test No.	Date/Day	Max. Marks	Subject	
1.	11 th Aug, 2021 Wednesday	300	New Topic	Electrical Circuit 1 : Concepts of resistance, inductance, capacitance, and various factors affecting them. Concepts of current, voltage, power, energy and their units. Kirchhoff's law, Simple Circuit solution using network theorems.
2.	18 th Aug, 2021 Wednesday	300	New Topic	Electrical Circuit 2 : Concepts of flux, mmf, reluctance, Different kinds of magnetic materials, Magnetic calculations for conductors of different configuration e.g. straight, circular, solenoidal, etc. Electromagnetic induction, self and mutual induction. Instantaneous, peak, R.M.S. and average values of alternating waves, Representation of sinusoidal wave form, simple series and parallel AC Circuits consisting of R, L and C, Resonance, Tank Circuit. Poly Phase system – star and delta connection, 3-phase power, DC and sinusoidal response of R-L and R-C circuit.
			Revision Topic	Electrical Circuit 1
3.	25 th Aug, 2021 Wednesday	300	New Topic	Measurement 1 : Measurement of power (1 phase and 3-phase, both active and re-active) and energy, 2 wattmeter method of 3-phase power measurement. Measurement of frequency and phase angle.
			Revision Topic	Electrical Circuit 2
4.	1 st Sep, 2021 Wednesday	300	New Topic	Measurement 2 : Ammeter and voltmeter (both moving coil and moving iron type), extension of range wattmeter, Multimeters, Megger, Energy meter AC Bridges. Use of CRO, Signal Generator, CT, PT and their uses. Earth fault detection.
			Revision Topic	Measurement 1
5.	8 th Sep, 2021 Wednesday	300	New Topic	Electrical Machines 1 : D.C. Machine – Construction, Basic Principles of D.C. motors and generators, their characteristics, speed control and starting of D.C. Motors. Method of braking motor, Losses and efficiency of D.C. Machines. 1 phase and 3 phase transformers – Construction, Principles of operation, equivalent circuit, voltage regulation, O.C. and S.C. Tests, Losses and efficiency. Effect of voltage, frequency and wave form on losses. Parallel operation of 1 phase /3 phase transformers. Auto transformers.
			Revision Topic	Measurement 2
6.	15 th Sep, 2021 Wednesday	300	New Topic	Electrical Machines 2 : 3 phase induction motors, rotating magnetic field, principle of operation, equivalent circuit, torque-speed characteristics, starting and speed control of 3 phase induction motors. Methods of braking, effect of voltage and frequency variation on torque speed characteristics. Fractional Kilowatt Motors and Single Phase Induction Motors: Characteristics and applications. Synchronous Machines : Generation of 3-phase e.m.f., armature reaction, voltage regulation, parallel operation of two alternators, synchronizing, control of active and reactive power. Starting and applications of synchronous motors.
			Revision Topic	Electrical Machine 1
7.	22 nd Sep, 2021 Wednesday	300	New Topic	Power Systems 1 : Different types of power stations, Load factor, diversity factor, demand factor, cost of generation, inter-connection of power stations. Power factor improvement, various types of tariffs, types of faults, short circuit current for symmetrical faults.
			Revision Topic	Electrical Machines 2
8.	29 th Sep, 2021 Wednesday	300	New Topic	Power Systems 2 : Switchgears – rating of circuit breakers, Principles of arc extinction by oil and air, H.R.C. Fuses, Protection against earth leakage/over current, etc. Buchholz relay, Merz-Price system of protection of generators & transformers, protection of feeders and bus bars.
			Revision Topic	Power Systems 1
9.	6 th Oct, 2021 Wednesday	300	New Topic	Power Systems 3 : Lightning arresters, various transmission and distribution system, comparison of conductor materials, efficiency of different system. Cable – Different type of cables, cable rating and derating factor.
			Revision Topic	Power Systems 2
10.	13 th Oct, 2021 Wednesday	300	New Topic	Basic Electronics : Working of various electronic devices e.g. P N Junction diodes, Transistors (NPN and PNP type), BJT and JFET. Simple circuits using these devices.
			Revision Topic	Power Systems 3
11.	20 th Oct, 2021 Wednesday	300	New Topic	Utilization of Electrical Energy : Illumination, Electric heating, Electric welding, Electroplating, Electric drives and motors. Estimation and Costing : Estimation of lighting scheme, electric installation of machines and relevant IE rules. Earthing practices and IE Rules.
			Revision Topic	Basic Electronics
12.	27 th Oct, 2021 Wednesday	300	Full Syllabus Test-1	
13.	3 rd Nov, 2021 Wednesday	300	Full Syllabus Test-2	
14.	10 th Nov, 2021 Wednesday	300	Full Syllabus Test-3	
15.	17 th Nov, 2021 Wednesday	300	Full Syllabus Test-4	



MADE EASY
India's Best Institute for IES, GATE & PSUs

SSC-JE 2020

Mains Test Series

Mechanical Engineering

Total 15 Tests

11 Subjectwise Tests + 4 Full Syllabus Tests

Test No.	Date/Day	Max. Marks	Subject
1.	11 th Aug, 2021 Wednesday	300	New Topic Thermal Engineering 1 : Properties of Pure Substances : p-v & P-T diagrams of pure substance like H ₂ O, Introduction of steam table with respect to steam generation process; definition of saturation, wet & superheated status. Definition of dryness fraction of steam, degree of superheat of steam. h-s chart of steam (Mollier's Chart). 1st Law of Thermodynamics : Definition of stored energy & internal energy, 1st Law of Thermodynamics for cyclic process, Non Flow Energy Equation, Flow Energy & Definition of Enthalpy, Conditions for Steady State Steady Flow; Steady State Steady Flow Energy Equation.
			New Topic IC Engine : Otto cycle; plot on P-V, T-S Planes; Thermal Efficiency, Diesel Cycle; Plot on P-V, T-S planes; Thermal efficiency. IC Engine Performance, IC Engine Combustion, IC Engine Cooling & Lubrication
2.	18 th Aug, 2021 Wednesday	300	New Topic Thermal Engineering 2 : 2nd Law of Thermodynamics : Definition of Sink, Source Reservoir of Heat, Heat Engine, Heat Pump & Refrigerator; Thermal Efficiency of Heat Engines & co-efficient of performance of Refrigerators, Kelvin – Planck & Clausius Statements of 2nd Law of Thermodynamics, Absolute or Thermodynamic Scale of temperature, Clausius Integral, Entropy, Entropy change calculation for ideal gas processes. Carnot Cycle & Carnot Efficiency, PMM-2; definition & its impossibility. Power Plant : Rankine cycle of steam : Simple Rankine cycle plot on P-V, T-S, h-s planes, Rankine cycle efficiency with & without pump work. Boilers; Classification; Specification; Fittings & Accessories : Fire Tube & Water Tube Boilers. Air Compressors & their cycles; Refrigeration cycles; Principle of a Refrigeration Plant; Nozzles & Steam Turbines
			Revision Topic Thermal Engineering 1 + IC Engine
3.	25 th Aug, 2021 Wednesday	300	New Topic Fluid Mechanics 1 : Properties & Classification of Fluids : ideal & real fluids, Newton's law of viscosity, Newtonian and Non-Newtonian fluids, compressible and incompressible fluids. Fluid Statics : Pressure at a point. Measurement of Fluid Pressure : Manometers, U-tube, Inclined tube. Fluid Kinematics : Stream line, laminar & turbulent flow, external & internal flow, continuity equation.
			Revision Topic Thermal Engineering 2 + Power Plant
4.	1 st Sep, 2021 Wednesday	300	New Topic Fluid Mechanics 2 : Dynamics of ideal fluids : Bernoulli's equation, Total head; Velocity head; Pressure head; Application of Bernoulli's equation. Measurement of Flow rate Basic Principles : Venturimeter, Pilot tube, Orifice meter. Hydraulic Turbines: Classifications, Principles. Centrifugal Pumps : Classifications, Principles, Performance.
			Revision Topic Fluid Mechanics 1 + Thermal Engineering 1 + IC Engine
5.	8 th Sep, 2021 Wednesday	300	New Topic Production Engineering 1 : Classification of Steels : mild steel & alloy steel, Heat treatment of steel, Welding – Arc Welding, Gas Welding, Resistance Welding, Special Welding Techniques i.e. TIG, MIG, etc. (Brazing & Soldering), Welding Defects & Testing
			Revision Topic Thermal Engineering 2 + Power plant + Fluid Mechanics 2
6.	15 th Sep, 2021 Wednesday	300	New Topic Production Engineering 2 : NDT, Foundry & Casting – methods, defects, different casting processes, Forging, Extrusion, etc, Metal cutting principles, cutting tools, Basic Principles of machining with (i) Lathe (ii) Milling (iii) Drilling (iv) Shaping (v) Grinding, Machines, tools & manufacturing processes.
			Revision Topic Production Engineering 1 + Fluid Mechanics 1 + Fluid Mechanics 2
7.	22 nd Sep, 2021 Wednesday	300	New Topic Strength of Materials 1 : Equilibrium of Forces, Law of motion, Friction, Concepts of stress and strain, Elastic limit and elastic constants.
			Revision Topic Production Engineering 2 + Production Engineering 1
8.	29 th Sep, 2021 Wednesday	300	New Topic Strength of Materials 2 Bending moments and shear force diagram, Stress in composite bars, Torsion of circular shafts, Buckling of columns – Euler's and Rankin's theories, Thin walled pressure vessels
			Revision Topic Strength of Materials 1 + Production Engineering 2
9.	6 th Oct, 2021 Wednesday	300	New Topic Theory of Machines : Concept of simple machine, Four bar linkage and link motion, Flywheels and fluctuation of energy, Gears – Type of gears, gear profile and gear ratio calculation, Governors – Principles and classification, Cams
			Revision Topic Strength of Materials 1 + Strength of Materials 2
10.	13 th Oct, 2021 Wednesday	300	New Topic Machine Design : Power transmission by belts – V-belts and Flat belts, Clutches – Plate and Conical clutch, Riveted joint, Bearings, Friction in collars and pivots.
			Revision Topic Strength of Materials 2 + Theory of Machines
11.	20 th Oct, 2021 Wednesday	300	Revision Topic Theory of Machines : Concept of simple machine, Four bar linkage and link motion, Flywheels and fluctuation of energy, Gears – Type of gears, gear profile and gear ratio calculation, Governors – Principles and classification, Cams.
			Revision Topic Machine Design : Power transmission by belts – V-belts and Flat belts, Clutches – Plate and Conical clutch, Riveted joint, Bearings, Friction in collars and pivots.
12.	27 th Oct, 2021 Wednesday	300	Full Syllabus Test-1
13.	3 rd Nov, 2021 Wednesday	300	Full Syllabus Test-2
14.	10 th Nov, 2021 Wednesday	300	Full Syllabus Test-3
15.	17 th Nov, 2021 Wednesday	300	Full Syllabus Test-4

End of the
Document