IES MASTER

Institute for Engineers (IES/GATE/PSUs)

SSC-JE MAINS TEST SCHEDULE

CIVIL ENGINEERING

Date	Topic
TEST-1 2nd Aug. 2021	**N.T.** : M-1, SA-3, SM-1, TF-1
	R.T. :
TEST-2 8th Aug. 2021	**N.T.** : SA-1, M-2, SM-2,TF-3
	R.T. : M-1, SM-1,TF-1
TEST-3 11th Aug. 2021	**N.T.** : SA-2, SA-4, M-3, M-4,TF-2
	R.T. : SA-3, SM-1, SM-2,TF-3
TEST-4 14th Aug. 2021	**N.T.** : IR-1, SM-3, SM-4, HY-2, EE-4
	R.T. : TF-2, SA-1, M-2, M-3
TEST-5 17th Aug. 2021	**N.T.** : HY-1, RCC-1, DSS-2, EE-2
	R.T. : EE-4, M-4, SA-2, SA-4, HY-2, SM-3
TEST-6 20th Aug. 2021	**N.T.** : RCC-2, RCC-5, DSS-4, H-1
	R.T. : DSS-2, RCC-1, SM-4, IR-1
TEST-7 23rd Aug. 2021	**N.T.** : RCC-3, DSS-1, SU-1,H-2
	R.T. : HY-1, EE-2, DSS-4, RCC-2
TEST-8 26th Aug. 2021	**N.T.** : RCC-4, DSS-3, SU-2, EE-3
	R.T. : H-1, RCC-5, SU-1, SM-3
TEST-9 29th Aug. 2021	**N.T.** : BMC-1, BMC-2, EE-1, H-5
	R.T. : RCC-3, H-2, DSS-1, SU-2, M-1
TEST-10 1st Sept. 2021	**N.T.** : H-3, H-4, RAIL-1
	R.T. : BMC-1, H-5, EE-3, RCC-4, DSS-3
TEST-11 4th Sept. 2021	**N.T.** : IR-2, ECV-1, ECV-2, RAIL-2
	R.T. : BMC-2, EE-1, H-3, H-5, H-4, DSS-2, RCC-3
TEST-12 9th Sept. 2021	Full Length Test-1
TEST-13 13th Sept. 2021	Full Length Test-2
TEST-14 17th Sept. 2021	Full Length Test-3
TEST-15 21st Sept. 2021	Full Length Test-4

Test Type	Timing
SSC-JE Mains Test	10:00 A.M. to 12:00 P.M.

Note : The timing of the test may change on certain dates. Prior information will be given in this regard.

*N.T. : New Topic. *R.T. : Revision Topic

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Subject Code Details

Structure Analysis (SA)	**SA-1**	**SA-2**	**SA-3**	**SA-4**
	Slope Deflection Method, Moment Distribution Method	Truss, Cables, Arches	Force Method, Consistent Deformation,Method Method of Least work, Castigliano's Method, Determinacy / indeterminacy / stability	Influence line diagram

Strength of Material (M)	**M-1**	**M-2**	**M-3**	**M-4**
	Concept of Stress and Strain, Shear Force & Bending Moment, Deflection of Beams	Transformation of Stress & Strains, Theory of Failure, Combined Bending & Torsion/Combined bending & Transverse shear stress/combined bending & Axial stress	Torsion, Bending Stress, Shear Stress	Columns, Springs, Thick & Thin Shells, Moment of Area and Moment of Inertia

RCC Design (RCC)	**RCC-1**	**RCC-2**	**RCC-3**	**RCC4**	**RCC-5**
	RCC beams-flexural strength, shear strength, bond strength, design of singly reinforced and double reinforced beams, cantilever beams. T-beams (Both by WSM and LSM)	One way and two way slabs, Lintels (Both By WSM and LSM)	Reinforced brick works, columns, staircases, retaining wall, water tanks. (Both by LSM and WSM)	Pre-stress Concrete - Analysis and Loss Calculation	Isolated footings (Both by WSM and LSM)

Design of Steel Structure (DSS)	**DSS-1**	**DSS-2**	**DSS-3**	**DSS-4**
	Compression member	Connections (Direct, Eccentric), Tension Member	Beams, Roof trusses, Plate girders	Plastic Analysis

Building Materials and Concrete Technology (BMC)	**BMC-1**	**BMC-2**
	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.	Physical and Chemical properties, classification, standard tests, uses and manufacture/quarrying of materials e.g. building stones, silicate based materials, cement (Portland), asbestos products, timber and wood based products, laminates, bituminous materials, paints, varnishes.

Estimating, Costing and Valuation (ECV)	**ECV-1**	**ECV-2**
	Estimate, glossary of technical terms, analysis of rates, methods and unit of measurement, Items of work – Earthwork, Brick work (Modular & Traditional bricks), RCC work, Shuttering, Timber work, Painting, Flooring, Plastering. Boundary wall, Brick building,Water Tank, Septic tank, Bar bending schedule, Centre line method, Mid-section formula, Trapezodial formula, Simpson's rule.	Cost estimate of Septic tank, flexible pavements, Tube well, isolates 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.

Environmental Engineering (EE)	**EE-1**	**EE-2**	**EE-3**	**EE-4**
	Characteristics of water, Treatment of water, Distribution of water	Characteristics of Sewage, Disposal of Sewage	Sewer Design, Treatment Sewage	Air Pollution, Noise Pollution, Solid Waste Management, Miscellaneous topics

Soil Mechanics (SM)	**SM-1**	**SM-2**	**SM-3**	**SM-4**
	Classification of Soil, Soil water relationships, index properties of Soil, Compaction of Soil	Effective stress, Seepage, Permeability , Consolidation	Shear Stress, Vertical Stress Earth Pressure, Stability of Slopes, Bearing capacity, shallow Foundation	Deep Foundation, Soil Exploration

Hydraulics (H)	**H-1**	**H-2**	**H-3**	**H-4**	**H-5**
	Fluid properties, Hydrostatic Pressure, Liquid in relative equilibrium, Buoyancy & Flotation	Fluid Kinematics Fluid Dynamics, Weirs & Notches	Laminar flow, Turbulent Flow, Boundary layer theory, Drag & lift, Flow through Pipes	Open channel flow, Modal Analysis & Dimensional Analysis	Hydraulic Machines - pumps and turbines

Irrigation Engineering (IR)	**IR-1**	**IR-1**
	Soil water relationships, irrigation requirements of crops (Duty, Delta) Design of Canals (Lacey & Kennedy)	Gravity dams Cross drainage works, Weirs & Barrages, Seepage theory, Canal Falls/Canal Regulators, Energy dissipators, River training works

Hydrology (HY)	**HY-1**	**HY-2**
	Evapo-transpiration, Run off Abstraction from Precipitation, Hydrological Cycle, Precipitation, Stream flow measurement	Hydrograph, Flood Routing, Ground Water

Transportation Engineering (TF)	**TF-1**	**TF-2**	**TF-3**
	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 Macadam (WBM) and Wet Mix Macadam (WMM), Gravel Road, Bituminous construction, Rigid pavement joint, pavement maintenance, Highway drainage	Traffic Engineering – Different traffic survey, speed-flow-density and their interrelationships, intersections and interchanges, traffic signals, traffic operation, traffic signs and markings, road safety.

Railway Engineering (RAIL)	**RAIL-1**	**RAIL-2**
	Geometric Design of Track, Track & Tractive Resistance	Rails, Rail Joints, Sleepers, Fasteners, Ballast, Creep, Point & Crossing, Track Junction, Signalling, Station Yards, Miscellaneous

Surveying (SU)	**SU-1**	**SU-2**
	Principles of surveying, measurement of distance, chain surveying, working of prismatic compass, compass traversing, bearings, local attraction, theodolite traversing, adjustment of theodolite	Levelling, Definition of terms used in levelling, contouring, curvature and refraction corrections, temporary and permanent adjustments of dumpy level, methods of contouring, uses of contour map, tachometric survey, plane table surveying, curve setting, earth work calculation, advanced surveying equipment.

For Any Query Regarding The Program

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