JobNirdesh · Exam syllabus

SSC JE Syllabus 2025 (Paper 1 & Paper 2)

SSC JE 2025 · Staff Selection Commission (SSC) · SSC · All India · 2025

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Overview

Official SSC Junior Engineer (Civil, Mechanical & Electrical) Examination 2025 syllabus and exam pattern from SSC's notice dated 30.06.2025: Paper-I (200 marks) and Paper-II (300 marks), both computer-based.

Important information

Item	Details
Papers	Paper-I: 200 questions / 200 marks, 2 hours; Paper-II: 100 questions / 300 marks, 2 hours
Paper-I	Normalised marks of the CBE used for final merit
Final merit	Normalised CBE scores
Negative marking	Paper-I: 0.25 per wrong answer; Paper-II: 1 mark per wrong answer
Language	Hindi and English only
On-screen help	IS 456:2000 tables, steam tables and a scientific calculator are available on screen; no physical calculator allowed
Level	Diploma in Engineering level

Exam pattern

Paper / Stage	Subjects	Questions	Marks	Duration
Paper-I	General Intelligence & Reasoning (50), General Awareness (50), General Engineering — opted part (100)	200	200	2 hours
Paper-II	General Engineering — opted part	100	300	2 hours

Detailed syllabus

1. Paper-I: General Intelligence & Reasoning (50 marks)

- Analogies
- Similarities and differences
- Space visualization
- Problem-solving
- Analysis
- Judgment
- Decision-making
- Visual memory
- Discrimination
- Observation
- Relationship concepts

- Arithmetical reasoning
- Verbal and figure classification
- Arithmetical number series
- Abstract ideas and symbols and their relationships
- Arithmetical computations

Verbal and non-verbal questions.

2. Paper-I: General Awareness (50 marks)

- Current events
- Everyday observations in their scientific aspect
- History
- Culture
- Geography
- Economic Scene
- General Polity
- Scientific Research

India and its neighbouring countries; no special study required.

3. Paper-I Part-A: General Engineering (Civil & Structural) (100 marks)

- Building Materials
- Estimating, Costing and Valuation
- Surveying
- Soil Mechanics
- Hydraulics
- Irrigation Engineering
- Transportation Engineering
- Environmental Engineering
- Structural Engineering: Theory of Structures, Concrete Technology, RCC Design, Steel Design

For JE (Civil). Paper-II (300 marks) covers the same subject in much more detail — see para 14.3 of the official notice.

4. Paper-I Part-B: General Engineering (Electrical) (100 marks)

- Basic concepts
- Circuit law
- Magnetic Circuit
- AC Fundamentals
- Measurement and Measuring instruments
- Electrical Machines
- Fractional Kilowatt Motors and single-phase induction Motors
- Synchronous Machines
- Generation, Transmission and Distribution
- Estimation and Costing
- Utilization of Electrical Energy
- Basic Electronics

For JE (Electrical). Paper-II (300 marks) covers the same subject in much more detail — see para 14.3 of the official notice.

5. Paper-I Part-C: General Engineering (Mechanical) (100 marks)

- Theory of Machines and Machine Design
- Engineering Mechanics and Strength of Materials
- Thermodynamics: properties of pure substances, 1st and 2nd laws, air standard cycles for IC engines, IC engine performance, combustion, cooling & lubrication, Rankine cycle, boilers, air compressors, refrigeration cycles and plant, nozzles & steam turbines
- Fluid mechanics: properties and classification of fluids, fluid statics, measurement of fluid pressure, fluid kinematics, dynamics of ideal fluids, measurement of flow rate, hydraulic turbines, centrifugal pumps
- Classification of steel

For JE (Mechanical). Paper-II (300 marks) covers the same subject in much more detail — see para 14.3 of the official notice.

Official sources

Official syllabus: https://ssc.gov.in/api/attachment/uploads/masterData/NoticeBoards/Notice_of_adv_je_2025.pdf

Official website: https://ssc.gov.in

Online version: https://www.jobnirdesh.com/syllabus/ssc-je-syllabus-2025

Always confirm the syllabus with the official notification of the conducting body before you prepare or apply.