SSC JE Syllabus

The standard of the questions in Engineering subjects will be approximate of the level of Diploma in Engineering (Civil/ Electrical/ Mechanical) since both diploma holders and degree holders are eligible to apply for this post of SSC Junior engineer. All the questions will be set in SI units. The details of the **SSC JE syllabus** are as given below:

Paper-I

General Intelligence & Reasoning:

The Syllabus for General Intelligence would include questions of both verbal and non-verbal type. The test may include questions on analogies, similarities, differences, space visualization, problem-solving, analysis, judgment, decision making, visual memory, discrimination, observation, relationship concepts, arithmetical reasoning, verbal and figure classification, arithmetical number series, etc. The test will also include questions designed to test the candidate's abilities to deal with abstract ideas and symbols and their relationships, arithmetical computations and other analytical functions.

General Awareness:

Questions will be aimed at testing the candidate's general awareness of the environment around him/ her and its application to society. Questions will also be designed to test knowledge of current events and of such matters of everyday observations and experience in their scientific aspect as may be expected of any educated person. The test will also include questions relating to India and its neighboring countries especially pertaining to History, Culture, Geography, Economic Scene, General Polity, and Scientific Research, etc. These questions will be such that they do not require a special study of any discipline.

General Engineering (Civil & Structural, Electrical, and Mechanical)

Paper-II

Part-A (Civil Engineering): 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.

Part-B (Electrical Engineering): 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 and Electrical Energy, Basic Electronics.

Part-C Mechanical Engineering): Theory of Machines and Machine Design, Engineering Mechanics and Strength of Materials, 15 Properties of Pure Substances, 1st Law of Thermodynamics, 2nd Law of Thermodynamics, Air standard Cycles for IC Engines, IC Engine Performance, IC Engines Combustion, IC Engine Cooling & Lubrication, Rankine cycle of System, Boilers, Classification, Specification, Fitting & Accessories, Air Compressors & their cycles, Refrigeration cycles, Principle of Refrigeration Plant, Nozzles & Steam Turbines. Properties & Classification of Fluids, Fluid Statics, Measurement of Fluid Pressure, Fluid kinematics, Dynamics of Ideal fluids, Measurement of Flow rate, basic principles, Hydraulic Turbines, Centrifugal Pumps, Classification of steel.

The syllabus for engineering disciplines is the same for part-2 and the detailed syllabus can be read from the official notification.