



SUCCESS EASE

(A unit of SE Education Pvt. Ltd.)

SSC JE ELECTRICAL

2017-18

Paper Pattern & Syllabus

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About Us

Transformation of education and training has begun. Our task is to bring redress, establish, quality. Open the doors of opportunity, enable a true culture of learning and teaching to take root and strive for ever higher level of performance. We are a pillar of vital development of the students so that new opportunity struck them. We empower teachers and teaching assistant with our range of courses.

The courses offered are GATE, SSC JE, SSC, DMRC, NMRC. The faculties are well experienced & specialized in their own subjects always come out with new ideas of effective & interesting learning techniques. They nurture the talents of the students & provide them tremendous ease in achieving their goals.

Regular test are conducted by the teachers preparing students for these competitive exams so that they feel confident to appear in any of the competitive exams at any stage of their life.

Books are offered for all subjects for all courses. Subject wise notes and assignment are provided for every topic. The facility of online test on TESTBOOK.COM (India no. 1 online test series for RAILWAYS, SSC, GATE and all competitive exams) is provided to the students.

WHY SUCCESS EASE?

- Consistent, focused and systematic course curriculum.
- Committed and Enthusiastic faculty members.
- 6month+1month (non-technical) class course.
- Thoroughly updated Study Materials
- Regular assessment of performance through online and offline test series- Motivational classes and strategically planning classes to qualify exams
- Guidance till your selection
- Students can take backup classes in any batch
- Well maintained classrooms and library

Paper Pattern

PAPER-I (Objective Type)

Subject	NO. of Questions	Marks	Duration
General Intelligence & Reasoning	50	50	
General Awareness	50	50	2 Hours
Technical Part- (CIVIL, EE, ME.)	100	100	

PAPER-II (Written)

Subject	Marks	Duration
Technical Part- (CIVIL, EE, ME.)	300	2 Hours

RAILWAY RECRUITMENT BOARD (RRB JE/SSE)

PART-I (General Ability)

Subject	Marks	Duration
General Intelligence & Reasoning		
General Awareness	60	
Arithmetic		

PART-II (Technical Ability/General Science)

Subject	Marks	Duration
Basic Concepts of Physics, Civil, Mechanical, Electrical, Electronics, Computers, Environment & Pollution Control, Instrumentation & Measurement, Engineering Drawing.	90	
	Total-150	Total-2 hours

DELHI METRO RAIL CORPORATION LTD. (DMRC/NMRC JE)

PAPER-I

Subject	No. Of Questions	Marks	Duration
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Technical/Professional Sphere (CIVIL, EE, ECE,ME)	75	75	
General awareness			90 Mints
logical ability and reasoning	45	45	
Numerical Ability			

PAPER-II

Subject	No. Of Questions	Marks	Duration
General English	60	60	45 Mints

SSC JE last year cut off in Paper-1 (out of 200 marks)

Engineering	UR	OBC	SC	ST	OH	HH
Civil- 2017	117.0	110.75	101.75	105.00	91.50	61.75
Civil-2016	100	92.5	84.5	85.5	72.5	40
Civil-2015	103.8	91.25	88	87.75	78	30
Civil-2014	93.75	82	75.75	70	69	40
Civil-2013	78	70.5	66.25	63.5	60	40
Civil-2012	62.25	52.5	47.75	43.5	30	30

SYLLABUS

Basic concepts:	Concepts of resistance, inductance, capacitance, and various factors affecting them. Concepts of current, voltage, power, energy and their units.
Circuit Law:	Kirchhoff's law, Simple Circuit solution using network theorems.
Magnetic Circuit:	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
AC Fundamentals	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, phase power, DC and sinusoidal response of RLand R-C circuit
Measurement and measuring instruments:	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. Ammeter and voltmeter (both moving oil 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.
Electrical Machines:	(a) 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. (b) 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, 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, Generation, Transmission and Distribution – 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. Switchgears – rating of circuit breakers, Principles of arc extinction by oil and air, H.R.C. Fuses, Protection against earth leakage / over current, etc. Buchholtz relay, Merz-Price system of protection of generators & transformers, protection of feeders and bus bars. 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.
Estimation and costing:	Estimation of lighting scheme, electric installation of machines and relevant IE rules. Earthing practices and IE Rules. Utilization of Electrical Energy: Illumination, Electric heating, Electric welding, Electroplating, Electric drives and motors.
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.

Why Join Success Ease?

SSC JE

SSC JE+RRB JE+DMRC JE (Recommended)

Thanks for Visiting Us. We Wish You Good Luck for your future.

