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Engineering Academy
Leading Institute for ESE/GATE/PSUs



STAFF SELECTION COMMISSION

JUNIOR ENGINEER(Paper-II) EXAMINATION-2023

Online Test Series

Electrical Engineering - Schedule

No.of Tests : 13	
Subject Wise Tests	10
Full Length Mock Tests	3

Note:

- ❖ The Syllabus considered as per Notification of SSC-JE-2023. ACE Engineering Academy does not take any responsibility for deviations in syllabus in the final SSC-JE-2023 exam. As per Notification of SSC-JE-2023 each question carries '3' mark and negative marking of '1' Mark for each wrong answer.
- ❖ The Dates of tests may change according to the SSC-JE-2023(Paper-II) Exam schedule.
- ❖ Tests will be activated at 6:00 pm on scheduled day.
- ❖ All tests will be Active upto SSC-JE-2023 (Paper-II) Examination.

Subject-wise Tests

(No. of Questions: 50, Time duration: 60 Minutes and Marks: 150 M)

Test No	Name of the Test	Date of Activation
Test-01	<p>Basic concepts, Circuit law, Magnetic Circuit & AC Fundamentals: Basic concepts: Concepts of resistance, inductance, capacitance, and various factors affecting them Concepts of current, voltage, power, energy and their units Circuit law: Kirchoff'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, RMS and average values of alternating waves, Representation of sinusoidal wave form, simple series and parallel AC Circuits consisting of RL and C, Resonance, Tank Circuit Poly Phase system – star and delta connection, 3 phase power, DC and sinusoidal response of R-Land R-C circuit</p>	19-10-2023
Test-02	<p>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</p>	21-10-2023
Test-03	<p>DC Machine: Construction, Basic Principles of DC motors and generators, their characteristics, speed control and starting of DC Motors Method of braking motor, Losses and efficiency of DC Machines</p>	23-10-2023
Test-04	<p>Transformers: 1 phase and 3 phase transformers – Construction, Principles of operation, equivalent circuit, voltage regulation, OC and SC Tests, Losses and efficiency Effect of voltage, frequency and wave form on losses Parallel operation of 1 phase /3 phase transformers Auto transformers</p>	25-10-2023
Test-05	<p>Induction Machines: 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</p>	27-10-2023
Test-06	<p>Synchronous Machines: Generation of 3-phase emf armature reaction, voltage regulation, parallel operation of two alternators, synchronizing, control of active and reactive power Starting and applications of synchronous motors</p>	29-10-2023
Test-07	<p>Generation 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, and distribution system, comparison of conductor materials, efficiency of different system Cable – Different type of cables, cable rating and derating factor</p>	31-10-2023

Test No	Name of the Test	Date of Activation
Test-08	Transmission: Short circuit current for symmetrical faults Switchgears – rating of circuit breakers, Principles of arc extinction by oil and air, HRC 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	02-11-2023
Test-09	Estimation and costing & Utilization of Electrical Energy: 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	04-11-2023
Test-10	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	06-11-2023

Full Length Mock Test Series

(No. of Questions: 100, Time duration: 120 Minutes and Marks: 300 M)

Test-11	Full Length Mock Test-1	11-11-2023
Test-12	Full Length Mock Test-2	18-11-2023
Test-13	Full Length Mock Test-3	25-11-2023