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Engineering Academy
Leading Institute for ESE/GATE/PSUs



TGPSC
ASSISTANT EXECUTIVE ENGINEERS
Online Test Series

Electrical Engineering - Schedule

No.of Tests : 22 + 21 <i>free</i> practice tests of TGPSC-AEE-2022 OTS		
	TGPSC-AEE-2024	Practice Tests TGPSC-AEE-2022
Subject Wise Tests	18	17
Full Length Mock Tests	4	4
Total Tests - 43		

Note:

- ★ The Syllabus considered as per Previous year Notification of TGPSC-AEE.
- ACE Engineering Academy does not take any responsibility for deviations in syllabus in the final exam.
- ★ The Dates of Tests may Change according to the TGPSC-AEE Exam schedule.
- ★ All Tests will be active till TGPSC-AEE Examination.
- ★ Tests will be activated at 06:00 pm on the scheduled day.
- ★ Test series available in ENGLISH medium only.

Subject wise Tests

(No. of Questions: 30, Time duration: 30 Minutes)

Test No	Name of the Test	Max Marks	Date of Activation
Test-01	Electric Circuits and Fields: Network graph, KCL, KVL, node and mesh analysis, transient response of dc and ac networks; sinusoidal steady-state analysis, resonance, basic filter concepts; ideal current and voltage sources, Thevenin's, Norton's, Superposition, Maximum Power Transfer and Reciprocity theorems; two-port networks, three phase circuits; Star, Delta connections, Measurement of power in 3-phase by two-wattmeter method; Fourier, Laplace and Z transforms; Gauss Theorem, electric field and potential due to point, line, plane and spherical charge distributions; Ampere's and Biot-Savart's laws; inductance; dielectrics; capacitance.	60	06-11-2024
Test-02	Electrical Machines-1: Transformer: Single phase transformer - equivalent circuit, phasor diagram, tests, regulation and efficiency; three phase transformers - connections, parallel operation; auto-transformer. DC machines: Energy conversion principles; DC machines - types, windings, generator and motor characteristics, losses and efficiency, armature reaction and commutation, starting and speed control of motors, tests.	60	11-11-2024
Test-03	General Studies and General Abilities-1: Society, Culture, Heritage, Arts and Literature of Telangana. Policies of Telangana State.	30	12-11-2024
Test-04	Electrical Machines-2: Induction motors: Three phase induction motors - principles, types, performance characteristics, starting and speed control; single phase induction motors. Synchronous machines: Synchronous machines - performance, regulation and parallel operation of alternators, motor starting, characteristics and applications; servo motors.	60	16-11-2024
Test-05	Power Systems-1: Basic power generation concepts, Economic aspects, per-unit quantities; bus impedance and admittance matrices; load flow study; symmetrical components; symmetrical & unsymmetrical fault analysis; Power system stability concepts, swing equation, power angle curve, solution of swing equation, equal area criterion.	60	21-11-2024
Test-06	General Studies and General Abilities-2: Economic and Social Development of India and Telangana. Socio-economic, Political and Cultural History of Telangana with special emphasis on Telangana Statehood Movement and formation of Telangana state.	30	22-11-2024
Test-07	Power Systems-2: Types of Tariffs; transmission line models and performance; cable performance, insulators, Sag and Tension; corona and radio interference; distribution systems; voltage control; power factor correction. Economic operation; Load Frequency Control; principles of over-current, differential and distance protection; Generator protection, Transformer protection, Feeder protection, static relays; circuit breakers.	60	26-11-2024
Test-08	General Studies and General Abilities-3: Physical, Social and Economic Geography of India. Physical, Social and Economic Geography and Demography of Telangana.	30	27-11-2024
Test-09	Control Systems: Principles of feedback; transfer function; block diagrams; steady-state errors; Routh and Nyquist techniques; Bode plots; root loci; lag, lead and lead-lag compensation; state space model; state transition matrix, controllability and observability.	60	01-12-2024
Test-10	General Studies and General Abilities-4: General Science; India's Achievements in Science and Technology. Environmental issues; Disaster Management- Prevention and Mitigation Strategies.	30	02-12-2024
Test-11	Electrical and Electronic Measurements: DC, AC Bridges, potentiometers; PMMC, moving iron, dynamometer and induction type instruments; measurement of voltage, current, power, energy and power factor; shunts, multipliers; instrument transformers; digital voltmeters, CRO; phase, time and frequency measurements using lissajous patterns; error analysis.	60	06-12-2024
Test-12	General Studies and General Abilities-5: Socio-economic, Political and Cultural History of Modern India with special emphasis on Indian National Movement. Indian Constitution; Indian Political System; Governance and Public Policy.	30	07-12-2024
Test-13	Analog Electronics: Characteristics of p-n junction diode, Zener diode, BJT, FET; amplifiers - biasing, equivalent circuit and frequency response; oscillators and feedback amplifiers; operational amplifiers - characteristics and applications; simple active filters; VCOs and timers.	60	11-12-2024
Test-14	Digital Electronics and Microprocessor: Boolean Algebra, minimization of switching functions combinational and sequential logic circuits; schmitt trigger, multi vibrators Flip flops, counters and registers, sample and hold circuits; A/D and D/A converters; microprocessor basics.(8085 & 8086), architecture, programming and interfacing, 8051 mc BASICS (Architectures. Addressing modes and instruction set).	60	12-12-2024
Test-15	General Studies and General Abilities-6: Current affairs – Regional, National and International. International Relations and Events.	30	16-12-2024

Test No	Name of the Test	Max Marks	Date of Activation
Test-16	<p>Power Electronics: Semiconductor power diodes, transistors, thyristors, triacs, GTOs, MOSFETs and IGBTs - static characteristics and principles of operation; triggering circuits commutation circuits; phase control rectifiers; bridge converters - fully controlled and half controlled; dual converters, principles of choppers, inverters, cyclo-converters and ac voltage controllers.</p> <p>Electric Drives: Four quadrant operation, Types of loads, Energy loss during starting and braking of dc and ac motors, Types of braking in dc & ac motors, Basis concepts of converter and chopper fed dc drives; V/f control, static rotor resistance control and slip power recovery scheme of 3-phase induction motor drives.</p>	60	21-12-2024
Test-17	<p>Utilization: High frequency eddy current heating, dielectric heating, Arc furnace, electric arc welding & electric resistance welding, Illumination: Laws of illumination, MSCP, SV & MV lamps, Factory, street & flood lighting, Electric traction and track electrification, Speed-time curves, Tractive effort, Specific energy consumption, Mechanism of train movement, adhesive weight and coefficient of adhesion. DC motor series parallel control, energy saving.</p>	60	22-12-2024
Test-18	<p>General Studies and General Abilities-7: Logical Reasoning; Analytical Ability and Data Interpretation. Basic English. (10th Class Standard)</p>	30	26-12-2024

Full Length Mock Test

(No. of Questions: 150, Time duration: 150 Minutes)

Test-19	Mock-1 PAPER-I (General Studies & General Abilities)	150	04-01-2025
Test-20	Mock-1 PAPER-II (Engineering Discipline)	300	05-01-2025
Test-21	Mock-2 PAPER-I (General Studies & General Abilities)	150	11-01-2025
Test-22	Mock-2 PAPER-II (Engineering Discipline)	300	12-01-2025

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Test-02	Electrical Machines-1: Transformer: Single phase transformer - equivalent circuit, phasor diagram, tests, regulation and efficiency; three phase transformers - connections, parallel operation; auto-transformer. DC machines: Energy conversion principles; DC machines - types, windings, generator and motor characteristics, losses and efficiency, armature reaction and commutation, starting and speed control of motors, tests.	60	
Test-03	General Studies and General Abilities-1: Society, Culture, Heritage, Arts and Literature of Telangana. Policies of Telangana State.	30	
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Test-19	Mock-1 PAPER-II (Engineering Discipline)	300	
Test-20	Mock-2 PAPER-I (General Studies & General Abilities)	150	
Test-21	Mock-2 PAPER-II (Engineering Discipline)	300	