



**ACE<sup>®</sup>**  
**Engineering Academy**  
Leading Institute for ESE/GATE/PSUs

**TSPSC**

**ASSISTANT EXECUTIVE ENGINEERS**

***Online* Test Series**

**Electrical Engineering - Schedule**

<b>No.of Tests : 30</b>	
<b>Subject Wise Tests</b>	<b>22</b>
<b>Full Length Mock Tests</b>	<b>8</b>

**All tests will be Active upto TSPSC-AEE Examination.**

## Subject wise Tests

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

Test No	Name of the Subject	Max Marks	Date of Activation
Test-01	<b>Electric Circuits and Fields:</b> 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 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	01-08-2021
Test-02	<b>Electrical Machines-1:</b> Single phase transformer - equivalent circuit, phasor diagram, tests, regulation and efficiency; three phase transformers - connections, parallel operation; auto-transformer.	60	04-08-2021
Test-03	<b>General Studies and General Abilities-1:</b> Society, Culture, Heritage, Arts and Literature of Telangana. Policies of Telangana State.	30	05-08-2021
Test-04	<b>Electrical Machines-2:</b> 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	07-08-2021
Test-05	<b>Electrical Machines-3:</b> Three phase induction motors - principles, types, performance characteristics, starting and speed control; single phase induction motors.	60	10-08-2021
Test-06	<b>General Studies and General Abilities-2:</b> 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	11-08-2021
Test-07	<b>Electrical Machines-4:</b> Synchronous machines - performance, regulation and parallel operation of alternators, motor starting, characteristics and applications; servo motors.	60	13-08-2021
Test-08	<b>Power Systems-1:</b> 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	16-08-2021
Test-09	<b>General Studies and General Abilities-3:</b> Physical, Social and Economic Geography of India. Physical, Social and Economic Geography and Demography of Telangana.	30	17-08-2021
Test-10	<b>Power Systems-2:</b> 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.	60	19-08-2021
Test-11	<b>Power Systems-3:</b> Economic operation; Load Frequency Control; principles of over-current, differential and distance protection; Generator protection, Transformer protection, Feeder protection, static relays; circuit breakers.	60	22-08-2021
Test-12	<b>General Studies and General Abilities-4:</b> General Science; India's Achievements in Science and Technology. Environmental issues; Disaster Management- Prevention and Mitigation Strategies.	30	23-08-2021
Test-13	<b>Control Systems:</b> 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	25-08-2021
Test-14	<b>Electrical and Electronic Measurements:</b> 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	28-08-2021
Test-15	<b>General Studies and General Abilities-5:</b> 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	29-08-2021
Test-16	<b>Analog Electronics:</b> 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	31-08-2021
Test-17	<b>Digital Electronics and Microprocessor:</b> 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.	60	03-09-2021

Test No	Name of the Subject	Max Marks	Date of Activation
Test-18	<b>General Studies and General Abilities-6:</b> Current affairs – Regional, National and International. International Relations and Events.	30	15-09-2021
Test-19	<b>Power Electronics:</b> 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.	60	30-09-2021
Test-20	<b>Electric Drives:</b> 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.	60	10-10-2021
Test-21	<b>General Studies and General Abilities-7:</b> Logical Reasoning; Analytical Ability and Data Interpretation. Basic English. (10th Class Standard)	30	21-10-2021
Test-22	<b>Utilization:</b> 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.	60	31-10-2021

### Full Length Mock Test

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

Test No	Name of the Mock	Max Marks	Date of Activation
Test-23	Mock-1 PAPER-I (General Studies & General Abilities)	150	13-11-2021
Test-24	Mock-1 PAPER-II (Engineering Discipline)	300	
Test-25	Mock-2 PAPER-I (General Studies & General Abilities)	150	27-11-2021
Test-26	Mock-2 PAPER-II (Engineering Discipline)	300	
Test-27	Mock-3 PAPER-I (General Studies & General Abilities)	150	16-12-2021
Test-28	Mock-3 PAPER-II (Engineering Discipline)	300	
Test-29	Mock-4 PAPER-I (General Studies & General Abilities)	150	30-12-2021
Test-30	Mock-4 PAPER-II (Engineering Discipline)	300	

**Note:** The Syllabus considered as per Previous year Notification of TSPSC. ACE Engineering Academy does not take any responsibility for deviations in syllabus in the final exam. The Dates of above Tests may Change according to the TSPSC Exam schedule.

Tests will be activated at 06:00 pm on the scheduled day.