# AP TRANSCO/GENCO
# Assistant Engineer

# *Online* Test Series

## Electrical Engineering - Schedule

| No.of Tests : 12 + (12 *free* practice tests) | | |
|---|---|---|
| | AP TRANSCO/GENCO Test Series | Practice Tests |
| Subject Wise Tests | 9 | 9 |
| Full Length Mock Tests | 3 | 3 |
| **Total Tests - 24** | | |

**Note:**

- The Syllabus considered as per previous notification of AP TRANSCO. 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 AP-TRANSCO/GENCO exam schedule.
- Tests will be activated at 6:00 pm on scheduled day.
- All tests will be active up to the forthcoming AP-TRANSCO/GENCO examination.
- Test series available in ENGLISH medium only.

# Subject-wise Tests

*(No.of Questions: 30, Time duration: 36 Minutes and Marks: 30 M)*

| Test No | Name of the Test | Date of Activation |
|---|---|---|
| Test-01 | **Electric circuits:** Network graph, KCL, KVL, node and mesh analysis, star/ delta transformation; electromagnetic induction; mutual induction; ac fundamentals; harmonics, transient response of dc and ac networks; sinusoidal steady-state analysis, resonance, ideal current and voltage sources, Thevenin's, Norton's, Superposition and Maximum Power Transfer theorems, two-port networks, three phase circuits, power measurement. | 20-01-2026 |
| Test-02 | **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. | 24-01-2026 |
| Test-03 | **Electrical Machines:** Single phase transformer - equivalent circuit, phasor diagram, tests, regulation and efficiency; three phase transformers - connections, parallel operation; auto-transformer; DC machines - types, windings, generator/ motor characteristics, armature reaction and commutation, starting and speed control of motors; three phase induction motors - principles, types, performance characteristics, starting and speed control; single phase induction motors; synchronous machines - performance, regulation and parallel operation of generators, motor starting, characteristics and applications. | 28-01-2026 |
| Test-04 | **Measurements:** Bridges and potentiometers; PMMC, moving iron, dynamometer and induction type instruments; measurement of voltage, current, power, energy and power factor; digital voltmeters and multi-meters; phase, time and frequency measurement; Q-meters; oscilloscopes; | 01-02-2026 |
| Test-05 | **Analog Electronics:** Characteristics of diodes, BJT, FET; amplifiers - biasing, equivalent circuit and frequency response; oscillators and feedback amplifiers. | 05-02-2026 |
| Test-06 | **Digital & Microprocessors:** Combinational and sequential logic circuits; multiplexer; Schmitt trigger; A/D and D/A converters; 8-bit microprocessor basics, architecture, programming and interfacing. | 09-02-2026 |
| Test-07 | **Power Electronics and Drives:** Semiconductor power diodes, transistors, thyristors, triacs, GTOs, MOSFETs and IGBTs - static characteristics and principles of operation; triggering circuits; phase control rectifiers; bridge converters - fully controlled and half controlled; principles of choppers and inverters; basic concepts of adjustable speed dc and ac drives. | 13-02-2026 |
| Test-08 | **Power Systems:** Basic power generation concepts; transmission line models and performance; underground cable, string insulators; corona; distribution systems; per unit quantities; bus impedance and admittance matrices; load flow; voltage control; power factor correction; economic operation; symmetrical components; fault analysis; principles of over-current, differential and distance protection; protection of alternator, transformer, transmission lines neutral earthing, solid state relays and digital protection; circuit breakers; system stability concepts, swing curves and equal area criterion<br>**Utilization:** Heating - resistance, induction, dielectric; Welding – spot, seam and butt; Electric traction – speed-time curves, tractive effort; | 17-02-2026 |
| Test-09 | **Analytical Aptitude** | 21-02-2026 |

| Test No | Name of the Test | Date of Activation |
|---|---|---|
| **Full Length Mock Test Series**<br>*(No.of Questions: 100, Time duration: 120 Minutes and Marks: 100 M)* | | |
| Test-10 | Full Length Mock Test-1 | 25-02-2026 |
| Test-11 | Full Length Mock Test-2 | 01-03-2026 |
| Test-12 | Full Length Mock Test-3 | 08-03-2026 |

# Subject-wise Tests

(No.of Questions: 30, Time duration: 36 Minutes and Marks: 30 M)

| Test No | Name of the Test | Date of Activation |
|---|---|---|
| Test-01 | **Electric circuits:** Network graph, KCL, KVL, node and mesh analysis, star/ delta transformation; electromagnetic induction; mutual induction; ac fundamentals; harmonics, transient response of dc and ac networks; sinusoidal steady-state analysis, resonance, ideal current and voltage sources, Thevenin's, Norton's, Superposition and Maximum Power Transfer theorems, two-port networks, three phase circuits, power measurement. | 25-08-2025 |
| Test-02 | **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. | |
| Test-03 | **Electrical Machines:** Single phase transformer - equivalent circuit, phasor diagram, tests, regulation and efficiency; three phase transformers - connections, parallel operation; auto-transformer; DC machines - types, windings, generator/ motor characteristics, armature reaction and commutation, starting and speed control of motors; three phase induction motors - principles, types, performance characteristics, starting and speed control; single phase induction motors; synchronous machines - performance, regulation and parallel operation of generators, motor starting, characteristics and applications. | |
| Test-04 | **Measurements:** Bridges and potentiometers; PMMC, moving iron, dynamometer and induction type instruments; measurement of voltage, current, power, energy and power factor; digital voltmeters and multi-meters; phase, time and frequency measurement; Q-meters; oscilloscopes; | |
| Test-05 | **Analog Electronics:** Characteristics of diodes, BJT, FET; amplifiers - biasing, equivalent circuit and frequency response; oscillators and feedback amplifiers. | |
| Test-06 | **Digital & Microprocessors:** Combinational and sequential logic circuits; multiplexer; Schmitt trigger; A/D and D/A converters; 8-bit microprocessor basics, architecture, programming and interfacing. | |
| Test-07 | **Power Electronics and Drives:** Semiconductor power diodes, transistors, thyristors, triacs, GTOs, MOSFETs and IGBTs - static characteristics and principles of operation; triggering circuits; phase control rectifiers; bridge converters - fully controlled and half controlled; principles of choppers and inverters; basic concepts of adjustable speed dc and ac drives. | |
| Test-08 | **Power Systems:** Basic power generation concepts; transmission line models and performance; underground cable, string insulators; corona; distribution systems; per unit quantities; bus impedance and admittance matrices; load flow; voltage control; power factor correction; economic operation; symmetrical components; fault analysis; principles of over-current, differential and distance protection; protection of alternator, transformer, transmission lines neutral earthing, solid state relays and digital protection; circuit breakers; system stability concepts, swing curves and equal area criterion<br>**Utilization:** Heating - resistance, induction, dielectric; Welding – spot, seam and butt; Electric traction – speed-time curves, tractive effort; | |
| Test-09 | **Analytical Aptitude** | |

| Test No | Name of the Test | Date of Activation |
|---|---|---|
| **Full Length Mock Test Series**<br>*(No.of Questions: 100, Time duration: 120 Minutes and Marks: 100 M)* | | |
| Test-10 | Full Length Mock Test-1 | **01-09-2025** |
| Test-11 | Full Length Mock Test-2 | |
| Test-12 | Full Length Mock Test-3 | |