

Non-Teaching Staff Recruitment
(Advertisement No. IITT/STAFFREC/01/2025 dated 14-07-2025)

Syllabus - Junior Technician (Electrical Engineering)

Electric Circuits and Networks:

Ideal voltage and current sources; Circuit elements; Circuit Laws and Analysis; Network Theorems; Sinusoidal steady-state analysis; Phasor diagrams; Resonance; Complex power and power factor in AC circuits; Star-delta transformation; Balanced three phase circuits; Time and frequency domain analysis of linear circuits.

Analog Circuits:

Diode circuits: clipping, clamping, and rectifiers. BJT and MOSFET amplifiers: differential amplifiers. Op-amp circuits: Amplifiers, summers, differentiators, integrators, active filters, Schmitt triggers, and oscillators.

Digital Electronics:

Number representations: Binary, Hexa-decimal. Combinatorial circuits: Boolean algebra, minimization of functions using Boolean identities and Karnaugh map, logic gates, multiplexers, and decoders. ADCs and DACs.

Selection Criteria:

- Level-I : Objective Test (Level-I is a screening test to call a reasonable number of candidates for the Level-II & Level-III tests.)
- Level-II : Descriptive Test
- Level-III : Skill/Trade Test

Note: All the tests will be conducted based on the above-mentioned syllabus. Equal weightage shall be given to Level-I and Level-II tests for the purpose of preparing the merit list. The Level-III test will be qualifying in nature (Pass/Fail).
