

Selection Process for the post of Electrical Engineer on contract

(Staff Recruitment Advt. No.: IITDh/ Admin/SR/37/2025-26 dated 1st September 2025)

All the shortlisted candidates are required to appear in person for **Interview followed by a Trade Test** scheduled on 6th March 2026 [Friday]. The venue for the Interview is IIT Dharwad, Karnataka.

Broad Syllabus for Interview and Trade Test:

- 1. Basic Electrical Engineering Concepts**
 - Ohm's Law, Kirchhoff's Laws
 - Single-phase and three-phase systems
 - Power (kW, kVA, kVAR), Power factor
 - Earthing and grounding fundamentals
 - Types of wiring systems
- 2. Electrical Equipment & Systems**
 - Transformers, generators, and motors
 - Switchgear (MCB, MCCB, ACB, VCB, etc.)
 - UPS and DG systems
 - HT/LT distribution systems
 - Lighting systems (internal and external)
 - Cabling types and selection (LT/HT cables, control cables)
- 3. Site Execution and Installation**
 - Cable laying, glanding, and termination
 - Conduit and cable tray installation
 - Panel erection and dressing
 - Earthing installation and testing
 - Lighting, power, and equipment wiring
 - Testing and commissioning procedures
- 4. Reading and Interpreting Drawings**
 - SLD (Single Line Diagram)
 - GA (General Arrangement) and layout drawings
 - Cable schedules and termination details
 - Control schematics
- 5. Codes, Standards & Safety**
 - Basic awareness of IS/IEC/NBC codes
 - Electrical safety rules and lockout/tagout procedures
 - PPE and safety at construction site
 - Inspection checklists
- 6. Measurement & Testing**
 - Megger test (IR testing)
 - Earth resistance testing
 - Continuity testing
 - Voltage, current, and power measurements
- 7. Estimation and Reporting**
 - Quantity estimation (cables, conduits, panels, etc.)
 - Preparing DPRs (Daily Progress Reports)
 - Coordination with civil/mechanical teams and vendors
 - Material handling and reconciliation
- 8. Tools & Software (Basic Awareness)**
 - AutoCAD (for electrical drawings)
 - MS Excel and Word (reporting and documentation)
- 9. Soft Skills**
 - Communication and team coordination
 - Trouble shooting and decision making
 - Time and task management