

Detailed Syllabus for the Post of Senior Electrician

1. Fundamentals of Electricity (10 Marks)

- Voltage, current, resistance, energy, power-definitions and units,
- Ohm's law-statement, simple problems related to ohm's law,
- Power and energy, Resistance in series and parallel-simple problems.
- Kirchhoff's laws-KCL and KVL

2. Measurements and measuring instruments (10 Marks)

- Various types of electrical measuring instruments - voltmeter, ammeter, energy meter, wattmeter,
- Single phase and three phase power measurement,
- Measurement of resistance, inductance and capacitance,
- Power factor meter, synchroscope, TOD meter, CRO,
- Insulation megger and earth megger, multimeter, CT and PT.

3. Wiring Accessories various wiring Systems (15 Marks)

- Wires-single strand and multi strand, current ratings.
- Fuses- cartridge and HRC.
- Switches- SPST, SPDT, TPTT, ICDP, ICTP, Toggle switch, Limit switch,
- Safety devices MCB, ELCB, RCCB, electrical illumination,
- Earthing-Pipe and Plate earthing.

4. DC Machines DC Generator (10 Marks)

- Construction, working, classification, emf equation,
- Wave and lap windings, characteristics, simple problems.
- DC motor- construction, working, types, emf equation,
- Torque-simple problems, various starters, speed control, testing, MG set.

5. History of Mata Vaishno Devi Ji and other Shakti Peeths. Knowledge about Mata Vaishno Devi Shrine. Working of Shri Mata Vaishno Devi Shrine Board. (10 Marks)

6. Practical Trade Test Syllabus (25 Marks)

- House wiring: Execute one-way/two-way lighting circuit or socket wiring and wiring of fan and regulator.
- Fault detection and rectification in simple electrical circuits, Ceiling Fans and Motors etc.

- Installation and termination of cables, MCBs, switches, sockets, and distribution boards.
- Earthing and insulation testing.
- Basic knowledge of single-phase electrical installation

Personal interview / viva

(20 Marks)

Grand Total

(100 Marks)

P. Suman

*P. Suman
AEE (Elect)*