

**ANNEXURE-II**  
**SYLLABUS FOR THE POST OF JLM IN TSNPDCL**

**SCHEME OF EXAMINATION**

Paper	Subject	No. of Questions	Duration (Minutes)	Maximum Marks
1.	I.T.I(Electrical Trade) and General Knowledge	80 Questions (I.T.I(Electrical Trade): 65 Questions and General Knowledge: 15 Questions)	120	80

**PAPER A : I.T.I (Electrical Trade)**

1. Fundamentals of electricity: Electrical occupational safety, tools, Ohms law, Kirchoffs law, series, parallel, Kirchoffs law and star delta, problems – Electrostatics and capacitors. Earthing principles and methods of earthing
2. Batteries: primary and secondary, lead acid cells, methods of charging - testing and application of batteries, invertors, battery chargers and maintenance
3. Magnetism: Magnetic materials and properties - laws of magnetism – electromagnetism, electromagnetic induction
4. Fundamentals of AC: Simple problems of AC fundamentals, power, power factor, single phase and three phase circuits
5. Basic Electronics: Electronic components, rectifiers, amplifiers, oscillators and power electronic components
6. DC Machines: construction, working principle and simple problems on DC generators and motors, speed control and applications of DC motors – windings
7. Transformers: construction, working principle, basic concepts and simple problems on transformers – windings – auto transformers, power transformers, CT & PT
8. AC Machines: basic concepts, construction principle and simple problems on three phase and single phase induction motor, universal motor, alternators, synchronous motors and their applications and windings - concept of power electronic drives
9. Electrical measurements – Different types of AC and DC measuring instruments, Domestic appliances and Illumination concepts - types of electric lamps
10. Electric Power generation- thermal, hydal and nuclear, transmission and distribution system – basic concepts, non-conventional energy sources.

## **PAPER B: GENERAL KNOWLEDGE**

1. Current affairs.
2. International Relations and Events.
3. General Science in everyday life.
4. Environmental Issues and Disaster Management.
5. Geography and Economy of India and Telangana.
6. Indian Constitution: Salient Features.
7. Indian Political System and Government.
8. Modern Indian History with a focus on Indian National Movement.
9. History of Telangana and Telangana Movement.
10. Society, Culture, Heritage, Arts and Literature of Telangana.
11. Policies of Telangana State.