

**AHMEDABAD MUNICIPAL CORPORATION**

**Tentativa Syllabus for Technical Supervisor (Light) Examination.**

**Paper Language - English**

1. **Basic Electrical Engg :- (5%)**  
ohm's law, kcl, kul, Y /  $\Delta$  transformation, circuit theorems: Nortem, thevenin, maximum powertransfer, superposition. Reciprocity theorems,magnetic circuits,laws of induction.Charging & Discharging of R.L.circuits, rise and decay of current in R.L.circuits.AC fundamentals, series, parallel circuits, Resonance, Hysteresis & addy current loss, polyphase circuits & watt meter method of power measurement, Batteries etc.
2. **Electrical Measurement & Measuring instruments:- (5%)**  
Bridges & potentiometers, low, medium and high resistance measurement.Moving coil & Moving iron instruments, Induction instruments, static voltmeters, phase sequence meter, cable fault location etc.
3. **Illumination Basic terms, laws, lamps :- (10%)**  
Tubgsten filament, mercury vapour, sodium vapour,glare, LED Designs : streetlight, office, theatre etc.
4. **Electrical Machines :- (5%)**  
Working principles- construction, operations of all DC machines.AC 1 ph, 3 ph, transformers, motors, generators etc.
5. **Electrical Power :- (5%)**  
Economics of Power AC/DC distribution designs etc., Capacitor, P.F.
6. **Commissioning of:- (10%)**  
Induction motor, transformer, cables & lines including protection,small substations,earthing and wiring, fuse, relay, breakers etc.
7. **Renewable Energy & Resources :- (10%)**  
Wind Power, solar, Gases, etc.
8. **Latest Trends in the world :- (20%)**  
SCADA, 24x7, .... Treatment Plant, Latest Technology in wáter treatment Plant available in the world, Sewarge Treatment Plant, Beautification of City (City Planning) like fountain, Laser Lighting which cheers the public of city.
9. **Mechanical Engg:- (30%)**  
Diffrent types pumps, sewage treatment plant, drilling machines,Refrigeration & A.C., Tendering of projects, Key performance indicators for STP/WTP in O & M, Disilting machineries (Vaccum Pumps / Pressure Pumps), Types & Uses of valves and its functions, Rising Mains.