

- ✓ Draw a schematic diagram of a thermal (steam) power plant and name the component.
- ✓ Explain the function of main component of steam power plant.
- ✓ With schematic figure explain basic concept of hydro power plant.
- ✓ Compare steam, hydro, gas, nuclear power plant of any 5 points.
- ✓ Explain the working of nuclear power plant.
- ✓ Draw a diagram and explain the working of gas power plant.
- ✓ Define load curve and load duration curve with nature of graph.
- ✓ Give the types of tariffs.
- ✓ Draw the block diagram of wind energy conversion, name the blocks.
- ✓ Explain constant speed squirrel cage induction generator.
- ✓ Explain doubly fed induction generator (DFIG).
- ✓ Draw a sketch and explain vertical axis small wind turbine.
- ✓ Give the types of concentrating solar power plant system (CSP system).
- ✓ Draw and explain V-I characteristic of solar cell.
- ✓ With the (schematic) diagram explain power supply system.
- ✓ Give the general construction of cable, different layers (parts) and function of each layer.
- ✓ Compare overhead and underground system of power transmission.
- ✓ Give the component of primary and secondary distribution system and draw diagram.
- ✓ Compare feeder with distributor.

- ✓ Draw diagram and explain in brief, the different connection schemes and distribution system.
- ✓ State the advantages and disadvantages of power factor in system.
- ✓ What are the case of low power factor?
- ✓ Explain synchronous modifier.
- ✓ What are the different method of neutral grounding?
- ✓ Compare different grounding method.
- ✓ What are the different method of earth resistance measurement? Explain in brief.
- ✓ Explain arc suppression coil grounding. State advantages, drawbacks and application.
  
- ✓ State the selection factors of conductor use for line.
- ✓ Write on bundled conductors.
- ✓ Explain ACSR conductor.
- ✓ With sketch explain suspension type insulator.
- ✓ Compare pin type and suspension type insulator.
- ✓ Derive the relation of sag on un-equal level supports.
- ✓ Write on skin effect and proximity effect.
- ✓ Derive the relation of inductance of 3-phase with symmetrical spacing.
- ✓ Give the concept of GMR and GMD.
- ✓ Explain the necessity of transposition.
- ✓ Derive the expression for capacitance of a single phase line.