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**Question Bank**

**Chapter 4- Power Scenario**

1. Discuss current Power Scenario in India and World

2. Explain the role of NTPC & NHPC in Power Sector of India

3. Explain power generation in Power Grid Corporation of India.

4. Write a note on State Grids, Railway Grids & International Grids.

5. Explain Combined Cycle Power Plant, Pumped storage &

Compressed Air Storage power plants.

6. Compare Hydel, Thermal, Nuclear and Diesel Power Plant

7. Explain Issues in Power Plants.

8. Enlist the private companies in power sector and explain any one.

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**Question Bank**

**Chapter 5- Load Curves & Instrumentation**

1. Explain Load Curves & Load Duration Curves

2. Discuss performance characteristics of power plants

3. Explain the terms Peak, Base & Intermediate load plants.

4. Explain Tariff Methods

5. Explain the measurement of CO2 by thermal conductivity method.

6. Explain magnetic wind method for measurement of oxygen in flue

Gases.

7. Explain measurement of water purity by conductivity method

8. Explain measurement of smoke and dust by reflected dust monitor.

9. What is pH value? What is its importance for feed water used in power plant ? Explain any one method of pH measurement.

10. What are the methods used to control CO, NOx in the flue gas

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**Question Bank**

**Chapter 6- Energy Management**

1. What do you understand by Energy Management? Give the steps in

energy management.

2. Explain the procedure for detailed Energy Audit.

3. Explain the supply chain in energy sector in india.

4.Explain strategy for energy conservation

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**Question Bank**

**Chapter 1- Renewable Energy Sources**

1. Define Declination angle, hour angle and Zenith angle2

2. Explain Solar Energy Potential

3. Write procedure to test collector as per BIS Standard

4. Draw a neat sketch of evacuated tube collector and analyse its use for

different application

5. Explain Thermal Energy Storage and list its types

6. Differentiate Focusing type over flat plate collectors

7. Solve problems on Angle of Incidence



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**Question Bank**

**Chapter 2- Solar Photovoltaics**

1. With the help of block diagram, explain the operation of grid connected solar system for residence

2. Explain the I V Characteristics of a solar cell and define fill factor. What is the significance of fill factor.

3. Explain the principle of operation of Phosphoric Acid Fuel cell.

4. Analyse solar PV on the basis of type of active material

a. Single Crystal Silicon Solar cell

b. Multicrystalline Silicon Solar cell

c. Amorphous Silicon Solar cell

d. Organic Solar Cell.

5. What is the importance of Maximum PowerPoint Tracking(MPPT) in a PV system? Outline various strategies used for operation of an MPPT.

6. Describe the classification of fuel cells. Comment on relative performance of various types of fuel cells,



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**Question Bank**

**Chapter 3- Wind Energy Systems**

1. Explain Wind Energy Conversion System(WECS) with general block diagram

2. Discuss the working principle of open & closed cycle OTEC plant with neat sketch. Write their advantages and disadvantages.

3. Explain the concept of Hybrid Wind-PV power plant. State their advantages

4. How the wind mills are classified ?Explain with schematic diagram of a VAWT