

Question Bank (I- scheme)

Name of Course: ELECTRICAL POWER GENERATION

Unit Test: I

Course code: (22327)

Course -EPG

Semester:III

Program : EE

Chapter 1: Thermal Power Plants (13M)

2 Marks Questions:

1. Define fission and fusion related to nuclear fuel.
2. Enlist the nuclear fuels.
3. Explain the purpose of shielding and reflector in a nuclear reactor.
4. State any two advantages of thermal power plant.
5. List any two Thermal Power Station in Maharashtra with their installed capacity.

4 Marks Questions:

6. Explain with layout the function of different parts and working of typical thermal power plant.
7. Compare fire tube and water tube boilers used in thermal power plants.
8. Draw schematic arrangement of diesel engine power station and important systems and essential components of diesel plant.
9. State the factors governing the selection of site for thermal power plant.
10. Explain the function of different parts of a typical nuclear power plant with neat sketch.
11. Describe Nuclear Hazards and various ways of disposal of nuclear waste.

Chapter 2: Hydro Electric Power Plant (16M)

2Marks Questions:

12. Classify hydropower plant on the basis of water head and state turbine used for them.
13. State any two advantages of Kaplan turbine over Francis turbine.
14. Classify the hydro-electric plants according to the head and load basis.
15. State any two advantages and any two disadvantages of Hydro-electric power station.

4 Marks Questions:

16. Draw schematic arrangement of hydroelectric power station and describe energy conversion process of hydro power plant.
17. Draw the layout of typical micro hydro scheme and describe potential locations of micro-hydro power plants in Maharashtra.

18. State the types of turbine used on the basis of water head in hydro power station. Describe working of any one.
19. Explain with neat sketch the construction and working of pelton turbine used in hydro power plant.
20. With a neat diagram explain pumped storage hydro power plant.
21. Describe the safe practices for Hydro Power Plants.
22. State the location and function of the following elements used in hydro plant. (i) Fore bay (ii) Spillway (iii) Penstock (iv) Tail Race v) Dam vi) Surge tank.

Chapter 3: Solar and Biomass based Power Plants (08M)

2 Marks Questions:

23. List different types of concentrating type solar collectors.
24. Why concentrating collectors are used in solar power plant.

4 Marks Questions:

25. Describe with layout the working of solar Photo Voltaic (PV) power plant.
 26. Explain with layout, the working of parabolic trough collector concentrated solar power plants.
 27. With a neat diagram explain solar power tower.
 28. Classify different types of condensers used in thermal power plant and write their functions.
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