

Question bank (G scheme)

Name of Subject: Energy Management

Subject code: 17559

Semester: Fifth

Course: CH

Unite test -II

Chapter-4:Energy efficiencyin thermal and electrical utilities(32Marks)

3 marks question

1. Explain working of FCB .
2. State advantages of and disadvantages of direct method.
3. State any four measures of energy conservation in boiler.
4. Explain working principle of shell and tube heat exchanger.
5. Write equations for hydraulic power and shaft power and explain the terms in it.
6. Why throttling loss should be avoided in pump?
7. How energy can be spavined by trimming impeller?
8. State any four measures of energy conservation in pump.
9. Define range and approach in cooling tower.

4 marks question:

1. Explain working of fire tube boiler.
2. Derive equation for LMTD of counter current flow.
3. State initial four steps to check performance of heat exchanger.
4. Explain working of centrifugal pump.
5. How energy can saved by reducing speed of pump?
6. Explain working of cooling tower.
7. How cooling tower performance can be assessed?
8. State any four measures of energy conservation in cooling tower.

Chapter-5:Non conventional energy sources (20Marks)

3 marks question

- 1) Explain the concept of fuel cell.
- 2) Explain the concept of wave and tidal energy.
- 3) Explain concept of geothermal energy.
- 4) Differentiate between conventional and non conventional energy.
- 5) Write various types of biomass.

4 marks question:

1. Explain working of box type solar cooker.
2. Explain working of parabolic type solar cooker.
3. How solar thermal energy can be converted into electrical energy.
4. Explain construction and working of solar cell.
5. State and explain components of wind mill.
6. Derive equation for power available in wind.
7. Explain construction and working of bio gas.