

Renewable Power Generation Systems

BRANCH-CS&E (7TH SEM)

PART-I

SHORT ANSWER TYPE QUESTIONS

1. Differentiate between primary and secondary energy.
2. Define concentration ratio of a solar collector?
3. What do you mean by energy yield ratio?
4. What do you mean by partial shadow of a solar cell in a solar module?
5. What is known as pyrolysis?
6. What is the hybrid energy based system needed?
7. Briefly explain about “Bio-diesel”.
8. Mention the advantage of vertical axis wind turbine over horizontal axis wind turbine.
9. Briefly explain, DFIG.
10. Draw power-speed curve of wind turbine.
11. Draw the block diagram of wind energy conversion system.
12. What do you understand by gust?
13. What is the basic difference between an active and passive solar heating system?

PART-II

FOCUSED –SHORT ANSWER TYPE QUESTIONS

1. Discuss about the difference between fixed dome and floating drum type biogas plants.
2. Explain about Microhydel-PV and Biomass-Diesel systems.
3. Explain the working of a Solar Cooker using a neat schematic diagram.
4. With the help of block diagram, explain the functions of various blocks of a WECS.
5. What is biomass? What are the different resources used to extract biomass energy?

Part-III

Only Long Answer Type Questions

1. Discuss the main features of various types of renewable and non renewable energy sources and explain the importance of non conventional energy sources in the context of global warming.
2. Draw and explain an equivalent circuit of a practical solar PV cell. Explain about Solar PV Module, Solar PV Panel and Solar PV Array.
3. What are Hybrid Systems? Explain about Hybrid Electric Vehicles, wind-diesel hybrid system and wind –PV hybrid system.