

Roll No.

ME-7101

B. E. (Seventh Semester) EXAMINATION, June, 2010

(Mechanical Engg. Branch)

ADVANCED ENERGY SYSTEM

(Elective-I)

(ME-7101)

Time : Three Hours

Maximum Marks : 100

Minimum Pass Marks : 35

Note : Attempt all questions. Each question carries equal marks.

1. Write a detailed note on renewable energy systems. How do they differ from conventional systems ? In spite of obvious advantages why are they not commercially popular ?

Or

2. Write a note on flat plate collector and parabolic concentric collectors. What specific purpose do they serve ?
3. Explain salient features of WASP software. How is it beneficial ?

Or

4. What are the types of wind turbines ? Give the design details and various considerations in the design.
5. What are the potential prospects and sources of bio-energy ? The most encouraging factor is its easy availability and production. Justify.

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Or

6. Explain various biomass based energy systems and their characteristics.
7. Waste heat recovery is an excellent method of energy conservation. What is the role of regenerators and recuperators in waste heat recovery ?

Or

8. Explain the working of circulating fluidized bed combustion (CFBC) and its characteristic features.
9. Describe salient features of design aspects of waste heat boilers. What are the additional equipments required ?

Or

10. What are the advantages of co-generation power system ? Write in context of combined cycle power plant.

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