

- (b) Describe the advantages and disadvantages of various methods of hydrogen storage. 5

No. of Printed Pages : 04

Roll No.

AA-601

M. Tech. EXAMINATION, May 2017

(First Semester)

(B. Scheme) (Re-appear Only)

(ESEM)

ESEM-101-B

NEW AND RENEWABLE ENERGY
SOURCES

Time : 3 Hours]

[Maximum Marks : 75

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. All questions carry equal marks.

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Unit I

1. (a) What do you understand by biomass assessment ? Discuss the role of remote sensing in assessment of forest biomass. **10**
(b) Discuss economics of thermo-chemical conversion. **5**
2. Describe the thermo-chemical route for biogas production from biomass. **15**

Unit II

3. (a) What is Hot-Dry Rocks Resources ? How can it be used ? Explain with diagram. **10**
(b) Define Magma. How can it act as energy resource ? **5**
4. (a) Define Geothermal Energy. How can we harvest geothermal energy ? **9**
(b) What are the various environmental issues concerned with the Geothermal Energy ? How these can be avoided ? **6**

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Unit III

5. (a) Explain the principle of Ocean Thermal Energy Conversion. **6**
(b) Discuss the open cycle ocean energy conversion with a schematic diagram indicating the main equipment. **9**
6. (a) What is the basic theory of wave energy ? **5**
(b) Discuss in detail the wave energy conversion machines. What are advantages and limitations of wave energy conversion ? **10**

Unit IV

7. (a) What is hybrid energy system ? Explain Wind-Hydel energy system with diagram. **8**
(b) Write a short note on Wind-DG hybrid. **7**
8. (a) What are the different methods for hydrogen storage ? **10**

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