

No. of Printed Pages : 03

Roll No. ....

**18BB1601**

**M. Tech. EXAMINATION, May 2019**

(Second Semester)

(C Scheme) (Main Only)

ENERGY AND ENVIRONMENTAL  
MANAGEMENT

EEM502C

RENEWABLE ENERGY SYSTEM–II

*Time : 3 Hours]*

*[Maximum Marks : 75*

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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.

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**Note :** Students shall have to attempt any *Five* questions selecting at least *one* from each Unit. All questions carry equal marks. Draw neat and clean sketch whenever required.

(1-04/1) **M-18BB1601**

**P.T.O.**

### Unit I

1. (a) Explain the working of Double flashed geothermal power plant. **8**  
(b) What are the operational and environmental problems in geothermal power plant ? **8**
2. Define and classify the Geothermal sources. Also describe the vapour dominated system. **15**

### Unit II

3. What is electrolysis ? Discuss the Filter-press Electrolyzer method for hydrogen production. **15**
4. What are the different methods for hydrogen storage ? Describe their advantages and disadvantages. **8,7**

### Unit III

5. Classify the types of Hydro-Electric plants and energy conversion schemes. Explain any one of the Hydraulic Turbines. **15**

**M-18BB1601**

**2**

6. (a) State the relationship between Head  $H_m$ , Flow rate  $Q_m$  and power  $P$  for hydro electric energy.  
(b) Distinguish amongst Small Hydro, Mini Hydro and Micro Hydro. **7,8**

### Unit IV

7. (a) Explain the principle of Inertial Plasma Confinement. **10**  
(b) Why is the Nuclear Fusion reaction being given high priority in research and development ? **5**
8. (a) Explain the problems with Nuclear Fusion reactions and how are they being attacked ? **5**  
(b) What are the main requirements for thermonuclear fusion ? **10**

**(1-04/2) M-18BB1601**

**3**

**40**