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BTECH
(SEM VIII) THEORY EXAMINATION 2023-24
RENEWABLE ENERGY RESOURCES

TIME: 3 HRS**M.MARKS: 70**

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

- 1. Attempt all questions in brief. 2 x 7 = 14**

a.	What are meant by renewable energy sources?
b.	Write a note on total solar energy received in India
c.	Define solar collectors.
d.	Define collector hear removal factor for flat plate collector.
e.	Define Seeback effect.
f.	Discuss the resources of biomass.
g.	Define wave energy.

SECTION B

- 2. Attempt any three of the following: 7 x 3 = 21**

a.	Describe the fossils fuel as a conventional energy source.
b.	Enumerate the different types of concentrating collector.
c.	Explain the working principle of magneto hydrodynamic power generation.
d.	Write short notes on thermoelectric material.
e.	Explain the process of production of biogas from biomass.

SECTION C

- 3. Attempt any one part of the following: 7 x 1 = 7**

a.	Discuss renewable forms of energy. Highlight their merits and demerits.
b.	What is MNRE? What are the mission and function of it?

- 4. Attempt any one part of the following: 7 x 1 = 7**

a.	Classify various storage systems. Explain any one of them.
b.	How many ways we can store solar energy? Explain.

- 5. Attempt any one part of the following: 7 x 1 = 7**

a.	Discuss the difference between geothermal plant and thermal power plant.
b.	Write short notes on practical problems associated with MHD power generation.

- 6. Attempt any one part of the following: 7 x 1 = 7**

a.	Give advantages and disadvantages of thermoelectrical generator.
b.	Describe the principle of operation and constructional details of basic thermionic generator.

- 7. Attempt any one part of the following: 7 x 1 = 7**

a.	Explain the process of gasification of solid mass.
b.	Give the advantages, disadvantages and applications of OTEC.