

(Following Paper ID and Roll No. to be filled in your
Answer Books)

Paper ID : 151651

Roll No.

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B.TECH.

Theory Examination (Semester-VI) 2015-16

ENERGY RESOURCES AND UTILIZATION

Time : 3 Hours

Max. Marks : 100

Section-A

1. Attempt all parts. All parts carry equal marks.

(10×2=20)

- (a) What is Environment Act 1986?
- (b) Define non conventional energy sources.
- (c) Write the energy conservation.
- (d) What are the disadvantages of Biodiversity?
- (e) Explain energy Audit?
- (f) What is meant by Acid rain?

- (g) Define Biological Oxygen Demand.
- (h) Define dust and smoke.
- (i) Define chemical toxicity.
- (j) A 50mL sample of treated waste water requires 200 mL of distilled water to reduce the odor to a level that is just perceptible. What is the threshold odor number (TON)?

Section-B

2. Attempt any five parts of the following. (10×5=50)

- (a) Describe the classification of industries based on air pollution potential.
- (b) Write the overall picture of environmental pollution.
- (c) Explain with neat sketch the working of Electrostatic Precipitator. Discuss the advantages and disadvantages of Electrostatic Precipitator.
- (d) Where do we have sources of geo-thermal energy in India? How power can be produced using geo-thermal source.

- (e) Explain how coal gas can be treated to recover various chemicals contained in it.
- (f) What is bio- diesel? How is biodiesel manufactured?
- (g) Discuss hydro electric potential in India. How do we produce electrical energy using hydel resources?
- (h) Explain the important uses of solar energy. Also explain the formation of three different layers in solar pond.

Section-C

Note: Attempt any two parts of the following. (15×2=30)

- 3. What is mean by coal gasification? Giving the chemical reactions involved in it, explain the formation of various products.
- 4. Differentiate between producer gas and coke oven gas. Also differentiate between CNG and LPG.
- 5. Describe the emergence of petroleum products as energy in details.