

TD 108.

Dr. Babasaheb Ambedkar Technological University, Lonere

SEMESTER EXAM

1<sup>st</sup> semester B.Tech. Programme in Chemical/Petrochemical/Civil/Mechanical Engineering

05 MAY 2017

Sub: Energy and Environmental Engineering

Time : 03 Hours

Max. Marks: 60

INSTRUCTIONS TO THE STUDENTS

1. Each question carries 12 Marks.
2. Attempt any five questions.
3. Illustrate your answers with neat sketches, diagrams etc. where ever necessary.
4. Necessary data is given in the respective questions. If such data is not given, it means that the knowledge of that data is a part of the examination.
5. If some part or parameter is noticed to be missing, you may appropriately assume it and should mention it clearly.

- Q1. (a) Differentiate between conventional and nonconventional energy resources and list out various power plants in India. (6)  
(b) Explain, thermo-electric and thermionic generators. (6)
- Q2. (a) What are the wind forms? Explain how wind energy can be converted into electrical energy. (6)  
(b) Write short notes on any two of the following: 2x6=12  
(i) Solar Energy (ii) Tidal Energy (iii) Biogas
- Q3. (a) What do you mean by energy conservation? Write down at least 10 ways by which energy can be conserved in our day to day life. (6)  
(b) Write a note on energy conservation principle. Give examples of energy transformation. (6)
- Q4. (a) Define air pollution. What do you mean by fixed and mobile sources of air pollution? (6)  
(b) Explain briefly the effect of air pollution on (i) human being, (ii) vegetation and (iii) Animal. (6)
- Q5. (a) Define water pollution. Explain its various sources. (6)  
(b) Explain various methods for control of water pollution and also explain water recycling. (6)
- Q6. (a) Explain briefly, Environment Protection Act. (6)  
(b) Explain the term "Watershed Management." (6)

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