

Dr. Babasaheb Ambedkar Technological University Lonere-Raigad
First Test Examination: October 2015
Class: B. Tech. All Branches in Engineering Semester: I
Subject: Energy and Environmental Engineering

Time: 1 hour

Maximum Marks: 15

Instructions: 1. All questions are compulsory however, there are few internal choice
2. Figures to the right indicate full marks

1. Solve the following:

- a) Define solar energy. What are the applications of solar energy?
(3)
- b) What are the fossil fuels used for generation of conventional power? Explain the working of gas based power plant with a neat diagram.
(4)

2. Solve any two of the following: (4 Marks each)

- a) Explain with a neat sketch how the nuclear power plant generates electricity. Label all the major parts of the plant and their functions.
- b) How the wind mills are classified? Show with a flow chart. Explain briefly about vertical wind mill with a neat sketch.
- c) What is Bio-mass? Write the percentage composition of Bio-gas. What are the environmental and health benefits of Bio-gas utilization?
- d) Discuss the basic principle of operation of Magneto-Hydro dynamic Generator. Draw a simple sketch.
