DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

B. Tech. (All Branches) (Semester – I)

FIRST TEST EXAMINATION - SEPTEMBER 2014

Sub.: Energy and Environmental Engineering (EEE) **Time: 01 Hour**

Max. Marks: 15

Instructions to the Student:

1. Figures to the right indicate full marks.

Que. 1: Select the right choice from the given answers (4*1 =4)

i) The overall efficiency of the Thermal power plant is ----------

a) 22-27% b) 28-35%
c) 35-40% d) 40-45%

ii) The economizer is used in Boilers to ----------

a) increase thermal efficiency b) heat feed water
c) extract heat from the exhaust flue gases d) increase the flue gas temperature

iii) A type of power plant located in Ranapratap sagar in Tota, Rajasthan is ---

a) Hydro-electric b) Thermal
c) Gas Turbine d) Nuclear

iv) A crude oil producing plants are located in ----------

a) Ankleshwar b) Kalol
c) Bombay High d) All of the above

OR

Que. 1: What are the fossil fuels used for generation of conventional power? Briefly explain the current status of the energy resources in India. 4

Que. 2: Describe with a neat sketch how the solar radiation propagates through the atmosphere? 3

*Que. 3: Solve **<u>any two</u>** of the following:* (2*4 =8)

a) Explain in brief with neat schematic the working of a Biogas plant.
b) Explain the working of gas turbine based power plant with a neat sketch.
c) How indirect type nuclear power plant operates? Draw a suitable schematic.
d) Give a classification of wind mills. Explain in brief the working of a horizontal axis wind mill.

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