

**DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE –  
RAIGAD -402 103**

**Winter Semester Examination – December - 2019**

**Branch: B. Tech. (Engineering & Technology)**  
**Subject:-Energy & Environment Engineering (EEE1205)**  
**Date:- 18/12/2019**

**Sem.:- I**  
**Marks: 60**  
**Time:- 3 Hr.**

**Instructions to the Students**

1. Solve Any Five of the following.
2. Each question carries 12 marks.
3. Illustrate your answers with neat sketches, diagram etc., wherever necessary.
4. If some part or parameter is noticed to be missing, you may appropriately Assume it and should mention it clearly

**(Marks)**

Q.N.	Question	Marks	CO	BT
1 a	Enumerate the various systems and components used in steam power plant. Explain feed water and ash handling circuit in these power plants.	6	EEE1205-2	BT2
1 b	What is a nuclear chain reaction? Explain how electricity is generated from a nuclear reactor?	6	EEE1205-1/3	BT1 BT2
2a	What is Bio-mass? Write the percentage composition of Bio-gas. What are the environmental and health benefits of Bio-gas utilization?	6	EEE1205-2	BT2
2b	How the Wind mills are classified? Sketch the diagram of a HAWT, and explain the function of its main components.	6	EEE1205-2	BT1 BT2
3a	What is energy efficiency? How do you conserve the energy in industry? Write the suitable measures.	6	EEE1205-1	BT1
3 b	What is the role of Energy manager in industry? Explain the concept of star rating of appliances in connection with energy conservation.	6	EEE1205-1	BT1 BT2
4a	What are the major sources of outdoor pollution? What effects does air pollution have on Health of animals and plants and materials.	6	EEE1205-1	BT2
4b	What are the major indoor pollutants?	6	EEE1205-4	BT1

	Where do the following indoor pollutants come from? How can you prevent or control indoor pollutants?			BT2
5a	Give a broad classification of water pollutants. What is the significance of BOD and COD?	6	EEE1205-4	BT2
5b	What is noise pollution? How to control it? What are its effects?	6	EEE1205-4	BT1 BT2
6	Solve any <b>Four</b> of the following			
a	Give classification of hydroelectric power plants and brief about the concept of mini and hydel power plants.	3	EEE1205-2	BT2
b	List at least four positive and negative effects each for the OTEC System.	3	EEE1205-2	BT2
c	What is marble cancer? How is Taj Mahal turning yellow?	3	EEE1205-4	BT1
d	How oil spills and sediments degrade the water quality? Explain.	3	EEE1205-4	BT1
e	Define solar energy. What are the applications of solar energy?	3	EEE1205-4	BT1 BT2
f	What is radioactive pollution? What are its effects?	3	EEE1205-2	BT2

Paper End