Roll No. -

University Institute of Engineering & Technology Kurukshetra University, Kurukshetra		
THEORY EXAMINATION – MAY 2019		TIME – 3 Hrs.
B.TECH – ECE & MECHANICAL	SEMESTER –4TH	M.M. - 60
COURSE NO. - MPC-202	COURSE TITLE –ENERGY STUDIES	

Note: All questions in Part-A and Part-B are compulsory. Attempt any four questions from Part-C selecting at least one from each unit.

PART-A (15 Marks)

Q. No. – 1 Answer the following questions. 15x1=15

1)	Define renewable energy and non-renewable energy sources.
2)	List the various forms of energy.
3)	What is the need for managerial skills in energy management?
4)	What are the benefits of benchmarking energy consumption?
5)	What is the role of cooling towers in thermal power plant?
6)	What do you mean by base load and peak load power plant?
7)	Discuss the function of penstock in hydroelectric power plant.
8)	Write short note on MHD.
9)	How can we improve the performance of solar collectors?
10)	What is mean by cogeneration?
11)	What are the disadvantages of bio-energy?
12)	Write down the various entities of power plant.
13)	What is mean by tariff?
14)	What are the various changes in distribution system in your locality since childhood?
15)	What should be reforms in power system for its sustainability?

PART-B (20 Marks)

	UNIT-I	
2	What are the various tools for energy audit? Briefly explain the functionality of the instruments.	5
	UNIT-II	
3	Discuss the merits and demerits of hydroelectric power plant.	5
	UNIT-III	
4	What are the various forms of renewable energy? What are the prospects of renewable energy projects for India?	5
	UNIT-IV	
5	Discuss the role of energy in economic development of nation.	5

PART-C (40 Marks)

	UNIT-I	
6	What do you mean by energy management? Explain its various strategies.	10
7	Define energy audit. Give its importance. What are the steps involved in energy audit?	10
	UNIT-II	
8	Draw the general layout of thermal power plant. Explain its various parts in brief.	10
9	What do you mean by nuclear power plant? Write down its advantages, disadvantages and methods to dispose nuclear waste.	10
	UNIT-III	
10	Describe briefly about how electricity is generated from solar energy?	10
11	Explain how can we convert wind energy into electric energy.	10
	UNIT-IV	
12	What is electric demand? Give the concept of maximum demand and how the demand is measured?	10
13	Discuss the energy scenario of India. Write down various factors related to it.	10