BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END SEMESTER EXAMINATION)

CLASS: MTECH/MUP **SEMESTER : III**
BRANCH: EEE/SER/CIVIL/ECE/ESE/ARCH **SESSION : MO/2022**

SUBJECT: ME684 ENERGY MANAGEMENT AND AUDITING

TIME: 3:00 Hours **FULL MARKS: 50**

INSTRUCTIONS:
1. The question paper contains 5 questions each of 10 marks and total 50 marks.
2. Attempt all questions.
3. The missing data, if any, may be assumed suitably.
***4*. Before attempting the question paper, be sure that you have got the correct question paper.**
5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.

Q.1(a)	How would you define about energy scenario of India in terms of overall production and consumption of coal, petroleum and electricity?	[5] CO-1 BT-L
Q.1(b)	How would you explain the significance of an energy policy, and how would you explain its general aims?	[5] CO-1 BT-M
Q.2(a)	Explain the objectives of energy management? How would you express its various principles?	[5] CO-2 BT-L
Q.2(b)	How would you generate a plan for a successful energy management program? Discuss duties and responsibilities of energy managers.	[5] CO-2 BT-H
Q.3(a)	How would you define Energy Audit .How would you generate a plan to collect base line data for conducting preliminary and detailed energy audit?	[5] CO-3 BT-L,M
Q.3(b)	How would you clarify the meaning “Measurements are an essential part of energy audit”. Also name various electrical and mechanical instruments used in energy audit.	[5] CO-3 BT-L
Q.4(a)	What do you mean by energy conservation? Discuss the energy conservation needs and its objectives.	[5] CO-1 BT-L
Q.4(b)	How would you explain the major problem associated with global warming and ozone depletion? What are the major causes for the generation of carbon dioxide in the atmosphere?	[5] CO-4 BT-M
Q.5(a)	What actions would you take to perform energy conservation for boilers, Refrigeration and air conditioning? Discuss briefly	[5] CO-4,5BT-M
Q.5(b)	Explain what is meant by term Energy efficient technology? Predict the kind of savings achieved in adopting energy efficient technologies in energy conservation program.	[5] CO-4,5 BT-L,M,H

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