



**B.Tech - Even Sem : End Semester Exam**  
**Academic Year:2021-2022**  
**18EE40B4 - Energy Estimation & Audit**  
**Set No: 3**

Time:		Max.Marks: 100					
S.NO	Answer All Questions	Choice	Options	Marks	CO	CO BTL	COI BTL
1.	Enumerate the objective of the energy audit with a simple case study.	choice Q-2		10Marks	CO1	2	1
2.	Describe the step-by-step procedure for maximum demand control with a suitable case study.			10Marks	CO1	2	1
3.	Define walk through audit. List the instruments used in performing audits.	choice Q-4		15Marks	CO1	2	2
4.	Explain the initiatives taken by the state and central governments in achieving energy conservation and increasing renewable generation.			15Marks	CO1	2	2
5.	Describe various losses in the rotating machines and Enumerate the advantages of energy-efficient motors.	choice Q-6		10Marks	CO2	2	1
6.	Discuss the concept of slip in Induction machines and its role in performance enhancement and efficiency improvement.			10Marks	CO2	2	1
7.	Discuss the constructional aspects and design differences between normal motors and energy-efficient motors.	choice Q-8		15Marks	CO2	2	2
8.	Describe various energy conservation opportunities for Induction Motor.			15Marks	CO2	2	2
9.	Explain the working principle and construction details of a transformer.	choice Q-10		10Marks	CO3	2	1
10.	Elucidate the construction of a cable in detail with a neat diagram.			10Marks	CO3	2	1
11.	Elucidate different performance analysis parameters of transformers.	choice Q-12		15Marks	CO3	2	2
12.	Enumerate different properties of insulating materials used in cables and list the causes of cable failures.			15Marks	CO3	2	2
13.	Illustrate the different principles of effective lighting design. And with suitable case study explain the good lighting practices.	choice Q-14		10Marks	CO4	2	1
14.	Explain in detail about static head and friction head in pumping systems.			10Marks	CO4	2	1
15.	Prepare an audit sheet to conduct an energy audit for lighting systems.	choice Q-16		15Marks	CO4	2	2
16.	Discuss various energy conservation opportunities for pumping systems.			15Marks	CO4	2	2

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