



**KONERU LAKSHMAIAH
EDUCATION FOUNDATION**
(Deemed to be University, Estd. u/s. 3 of UGC Act 1956)

B.Tech - Even Sem : End Semester Exam
Academic Year:2021-2022

18EE4122 - Energy Management Systems
Set No: 4

Time:		Max.Marks: 100					
S.NO	Answer All Questions	Choice	Options	Marks	CO	CO BTL	COI BTL
1.	Give the difference between commercial and non-commercial energy use? List the sources for the both energy uses.	choice Q-2		10Marks	CO1	2	1
2.	Mention the need for integrated energy policy.			10Marks	CO1	2	1
3.	Explain the difference between energy conservation and energy efficiency with a suitable example and case studies.	choice Q-4		15Marks	CO1	2	2
4.	Explain Demand Side Management with suitable case study or example.			15Marks	CO1	2	2
5.	Define Energy Performance Index (EPI) and EPI ratio. Mention the residential building star rating plan with respect to Energy Performance Index.	choice Q-6		10Marks	CO2	2	1
6.	List out the different compliance approaches to meet Energy Conservation Building Code with details.			10Marks	CO2	2	1
7.	Explain the features of a green building and green building practices.	choice Q-8		15Marks	CO2	2	2
8.	List the state and central Governments initiatives in conservation of energy in domestic and private commercial buildings.			15Marks	CO2	2	2
9.	A large scale industry without conducting energy audit, it added cogeneration plant running with the used steam. Later the plant efficiency is reduced. Now the management felt that due to cogeneration the main plant efficiency is reduced and stopped the cogeneration plant. Is the decision taken by the management is correct? Judge the case study.	choice Q-10		10Marks	CO3	2	1
10.	Explain how cogeneration is advantageous over conventional power plant.			10Marks	CO3	2	1
11.	Explain various types of cogeneration systems. Explain the assessment procedure for cogeneration systems.	choice Q-12		15Marks	CO3	2	2
12.	Give broad note on the following (i). Need for Cogeneration (ii). Principles of Cogeneration (iii). Feasibility of Cogeneration			15Marks	CO3	2	2
13.	Assess the HVAC system with respect to the Indian environment context. Consider a suitable case study to evaluate the opinion.	choice Q-14		10Marks	CO4	2	1
14.	List and explain factors affecting pump performance.			10Marks	CO4	2	1
15.	Explain any four energy efficiency opportunities for air conditioning and refrigeration systems.	choice Q-16		15Marks	CO4	2	2
16.	Explain the need for energy modeling in optimization process with the use of energy balance sheet and management Information system.			15Marks	CO4	2	2

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