

Hall Ticket Number :										
----------------------	--	--	--	--	--	--	--	--	--	--

<b>R-15</b>
-------------

**Code: 5G286**

IV B.Tech. II Semester Advanced Supplementary Examinations October 2020

**Energy Auditing and Demand side Management**

( Electrical and Electronics Engineering )

Max. Marks: 70

Time: 3 Hours

Answer all five units by choosing one question from each unit ( 5 x 14 = 70 Marks )

\*\*\*\*\*

	Marks	CO	Blooms Level
<b>UNIT-I</b>			
1. a) Explain energy audit and different types of energy audit.	7M		3
b) Explain pie-chart, Sankey diagrams and Load profiles.	7M		4
<b>OR</b>			
2. a) Explain in detail about energy conservation act.	7M		3
b) Write about energy codes, standards and Legislation.	7M		2
<b>UNIT-II</b>			
3. a) Explain the constructional details of energy efficient motors.	7M		4
b) Explain any two methods to improve power factor.	7M		3
<b>OR</b>			
4. a) Explain effect of Power factor with linear & non linear loads.	7M		3
b) Explain the disadvantages of low power factor in an electrical system from the consumer point of view.	7M		4
<b>UNIT-III</b>			
5. a) Write short notes on: (i) Good lighting system design. (ii) Lighting energy audit.	7M		3
b) Write different applications of PLC's	7M		4
<b>OR</b>			
6. a) Explain about Energy Instruments of Tongue tester & data logger.	7M		4
b) Explain principle and operation of lux meter and also write its applications.	7M		4
<b>UNIT-IV</b>			
7. a) Explain in detail about the time value of money concept.	7M		2
b) Explain different steps to develop cash flow models.	7M		3
<b>OR</b>			
8. a) What is depreciation and Explain various depreciation methods in detail.	7M		3
b) Explain pay back analysis. Mention its advantages and disadvantages.	7M		4
<b>UNIT-V</b>			
9. a) Discuss management and organization of energy conservation awareness program.	7M		3
b) Explain the concepts of DSM and benefits of DSM.	7M		4
<b>OR</b>			
10. a) Explain time of day tariff for DSM implementation.	7M		3
b) Explain i) vally filling    ii) peak clipping    iii) peak shifting of energy management.	7M		3

\*\*\*\*\*