

No. of Printed Pages : 4  
Roll No. ....

180961/170961

**6th Sem / Elect.**  
**Subject:- Electrical Energy Conservation and Management**

Time : 3Hrs. M.M. : 100

**SECTION-A**

**Note:** Multiple choice questions. All questions are compulsory (10x1=10)

**Q.1** Which of the following has highest luminous efficiency (CO1)

- a) cfl
- b) hpsv
- c) HPMV
- d) LPSV

**Q.2** Lumen efficiency of a Lamp is (CO1)

- a) Lux/Watt
- b) Watt/Lux
- c) Lumens/Watt
- d) Watt/Lumens

**Q.3** Full form of ECM (CO3)

- a) Energy Conservation Measures
- b) Energy Consumption Measures
- c) Energy Constant Measures
- d) None of these

**Q.4** Magnetic core loss Arise due to (CO4)

- a) Eddy currents
- b) Hysteresis loss
- c) Magnetic Saturation
- d) All of above

**Q.5** Power factor is (CO5)

- a) KW/KVA
- b) KVA/KW
- c) KVAr/VA
- d) None of these

**Q.6** Distribution transformer has max efficiency (CO4)

- a) Around full load
- b) Nearly half load
- c) 50% Load
- d) None of above

**Q.7** Term refrigeration means (CO6)

- a) Addition of cooling
- b) Removal of Heat
- c) Removal and Relocation of heat
- d) Replacement of heat

**Q.8** More is the star rating, more efficient is the appliance (CO7)

- a) True
- b) False

**Q.9** Fluorescent tube fitted with electronic choke (CO1)

- a) Need Starter
- b) Don't need starter
- c) Operate at low power factor
- d) None of above

**Q.10** In energy efficient transformer, core is made up of (CO4)

- a) Silicon steel
- b) Cast iron
- c) Amorphous material
- d) Copper

## **SECTION-B**

**Note:** Objective type questions. All questions are compulsory. (10x1=10)

- Q.11 Define Tariff (CO1)  
Q.12 What is the main requirement of good lighting (CO2)  
Q.13 One ton of refrigeration= (CO6)  
Q.14 What is the significance of synergy meter. (CO4)  
Q.15 Full form of HVAC is \_\_\_\_\_ (CO6)  
Q.16 Define Load factor (CO5)  
Q.17 ISI stands for \_\_\_\_\_ (CO4)  
Q.18 Name the elements of Energy Management (CO3)  
Q.19 What is Star Rating? (CO2)  
Q.20 Write down one tip for energy Saving in your building. (CO1)

## **SECTION-C**

**Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 What is the purpose of Big Star Label (CO2)  
Q.22 Explain laws of illumination (CO1)  
Q.23 Write Salient features of energy conservation Act 2001 (CO2)  
Q.24 Explain the Objective of energy Audit. (CO3)  
Q.25 What are the Losses Take place in Electric motor. (CO4)  
Q.26 Define EER. (CO5)

- Q.27 Write tips for energy saving in the Transformer. (CO4)  
Q.28 Why is ECBC important (CO7)  
Q.29 Write general energy saving tip in computer (CO6)  
Q.30 Write down the causes of poor power factoe (CO5)  
Q.31 Compare energy efficient motors with standard motor (CO4)  
Q.32 Explain in brief flat demand tariff (CO5)  
Q.33 Explain construtional features of EEMS (CO4)  
Q.34 Write down the reason of high commercial loss (CO5)  
Q.35 State the function of BEE. (CO3)

## **SECTION-D**

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

- Q.36 a) What is compressed air system. Explain hermetically sealed compressor  
b) Explain energy saving opportunities in compressor (CO5)  
Q.37 Write short note on energy efficient motors, Also compare energy efficient motors to standard efficient motors. (CO4)  
Q.38 Explain ECBC guidelines on heating ventilation and air conditioning. (CO7)