

Roll No .....

## MEEM-302(A)

**M.E./M.Tech., III Semester** Examination, June 2020

### Energy Efficiency in Electrical Utility

(Elective-II)

*Time : Three Hours*

**Maximum Marks : 70**

**Note:** i) Attempt any five questions.  
ii) All questions carry equal marks.

1. a) Discuss losses in induction motors.  
b) Enlist factors affecting motor performance.
2. What is two part tariff structure of electricity billing? Explain its components.
3. Explain the impact of condensing and evaporation temperatures on compressor power consumption.
4. What are cooling towers? How they work? Give a neat sketch of cooling tower and enlist its applications.
5. Explain the principle of induction motor and derive the torque equation to find the efficiency.
6. a) Describe the factor affecting for the selection of Diesel Generating System.  
b) Describe Flow Control Strategies of Fan and Blowers.
7. a) What should be the criteria for selection of DG set?  
b) Write check list for energy efficiency of electrical system.
8. a) Explain leakage test of air compressors.  
b) Write down types of pumps.

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