Printed Pages: 02 **Sub Code: EME065**

Paper Id: **140228** **Roll No.** | | | | | | | | | | |

B TECH
(SEM VIII) THEORY EXAMINATION 2018-19
ENERGY MANAGEMENT

Time: 3 Hours ***Total Marks: 100***

Note: Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. **2 x 10 = 20**

a. What is energy conservation?
b. What is computer aided management system?
c. Explain Exergy in Thermodynamics.
d. Explain Anergy in Thermodynamics.
e. What is waste cycle?
f. What is renewable energy?
g. What do you understand by cost of energy exploration?
h. What is the energy audit?
i. What is the National energy plan?
j. How is consumption of energy related to GDP of a country?

SECTION B

2. Attempt any *three* of the following: **10x3=30**

a. How can we balance the mass and energy in system? Write procedure and relevant equations, also explain shanky diagram.
b. List and elaborate different methods of power factor improvement in power system. Comment on the advantages of power factor improvement.
c. What do you understand by ozone layer? What are the causes for depletion of ozone layer?
d. What do you understand by industrial wastes? List some methods of industrial waste utilization.
e. What is "Life cycle cost analysis"? How is it different from a simple pay-back method? Also give the applications of life cycle cost analysis.

SECTION C

3. Attempt any *one* part of the following: **10x1=10**

a. How is the production and use of energy related to the economy of a country? What are various regulations laid down by the government for conservation of environment?
b. What is BEE? Discuss its role in energy conservation.

4. Attempt any *one* part of the following: **10x1=10**

a. Explain the energy management center along with its advantages and disadvantages.

b. Discuss the distributed centers and power pool management. What are their relative merits and demerits?

5. Attempt any *one* part of the following: 10x1=10

a. Describe the methodology of energy audits and various audit reports.
b. Explain multicontrol central systems along with their salient features and advantages.

6. Attempt any *one* part of the following: 10x1=10

a. What energy saving measures can be taken in the use of refrigerator compressor and heater?
b. What is the difference between continuous supply system and discontinuous energy supply system? Explain battery storage system.

7. Attempt any *one* part of the following: 10x1=10

a. What do you understand by greenhouse effect? What are its consequences? How is it caused?
b. What is the global warming? What are the main causes of global warming and climate change in today's time?