

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

B.Tech. (Electrical Engineering) (Sem.-6)

ENERGY EFFICIENT SYSTEMS

Subject Code : BTEE-604D-18

M.Code : 79321

Date of Examination : 11-07-22

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A

1. Write briefly :

- a) What are the common energy sources of an electrical power plant?
- b) What is power factor?
- c) What are the applications of an electrical motor?
- d) Write down the types of Alternating Current (AC) motors?
- e) What are the applications of a compressed air system?
- f) Write down the refrigerants used in air conditioning systems.
- g) What is blower?
- h) What is the difference between the fan and blower?
- i) What are the applications of a cooling tower?
- j) Write down the basic parameters and terms used in a lighting system.

SECTION-B

2. Explain why power is generated at low voltage and transmitted at higher voltages.
3. Explain construction and working of 3-phase Induction motor.
4. Elaborate the components of an air compressor system.
5. Explain heat transfer loops in a refrigeration system.
6. Explain the working of Incandescent lamp.

SECTION-C

7. Elaborate the energy performance assessment of diesel conservation avenues. List the factors affecting the selection of a diesel generating system.
8. Describe flow control strategies and energy saving opportunities assessment of a cooling tower.
9. Explain the various types of fans and blowers. Elaborate energy saving methods in a pumping system.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.