Roll No. | | | | | | | | | | | | | Total No. of Pages : 02

Total No. of Questions : 18

B.Tech. (EE) (2012 Onwards E-II) (Sem.–7)

ENERGY AUDITING AND MANAGEMENT

Subject Code : BTEE-804B

M.Code : 71937

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

Write briefly :

1. Name and define two indices which are used to identify inefficient equipment and devices.
2. Name the different types of pressure measuring instruments for energy auditing.
3. What is importance of power factor?
4. What are the duties of energy management team?
5. Which type of motors are mostly used in industries?
6. Why fresh investments are needed for energy conservation in industries? Which criteria need to be considered when listing investment opportunities?
7. List some factors affecting motor performance.
8. What are the advantages of sensitivity analysis?
9. Differentiate between centrifugal and axial fans.
10. Why does a motor need rewinding?

SECTION-B

11. What is Energy Audit? Why it is being carried out? Give a broad classification of energy audit.

12. "*The same laws of economics and commercial trading may not hold good for electricity as commodity*". Justify the statement by discussing distinguishing features of electricity as commodity.

13. Mention main provisions (at least three) of the Energy Conservation Act 2001 as applicable to a) designated consumers b) standards and labeling and c) energy conservation building codes

14. Discuss the procedure for preparing the process flow diagrams.

15. What are the factors affecting refrigeration and air conditioning system performance?

SECTION-C

16. What is cash flow? What is discounted cash flow method? What are the advantages and disadvantages of discounted cash flow method?

17. Define Energy Conservation with example. Explain the industrial, national and global benefits of energy conservation.

18. Discuss in detail the leakage test factors affecting the performance and efficiency of compressed air 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.