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**Question Paper Code: 59324**

B.E./B.Tech. DEGREE EXAMINATION, NOV 2018

Elective

Electrical and Electronics Engineering

15UEE924- ENERGY AUDIT

(Regulation 2015)

Duration: Three Hours

Maximum: 100 Marks

Answer ALL Questions

PART- A (5 x 3 = 15 Marks)

1. Define energy audit as per energy conservation act 2001. CO1-U
2. Write the expression for static fan efficiency. CO2-U
3. List out the energy audit instruments used for power measurement and flue gas measurement. CO3-Ana
4. Enumerate the various energy conservation opportunities in pumping system. CO4-U
5. State input output method of boiler. CO5-U

PART - B (5x 14 = 70 Marks)

6. (a) Explain about the difference between preliminary and detailed energy audits. CO1-U (14)  
Or  
(b) Explain in detail about industrial Energy Audit. CO1-U (14)
7. (a) Explain the Various Energy Conservation Measures in Steam systems. CO2-U (14)  
Or  
(b) Perform a case study on Energy Conservation in Steam Systems. CO2-U (14)

8. (a) Analyze the energy performance assessment of water pump. CO3-Ana (14)
- Or
- (b) Analyze the energy performance assessment of fans. CO3-Ana (14)
9. (a) Explain the energy conservation opportunities in air conditioning. CO4-U (14)
- Or
- (b) Explain in detail about the factors which influence the energy consumption of lighting schemes. CO4-U (14)
10. (a) Analyze the detailed process of M&T Thermostats. CO5-Ana (14)
- Or
- (b) Examine the various Losses in Boiler. CO5-Ana (14)
- PART - C (1x 15 = 15 Marks)
11. (a) List and explain about the various instruments used in energy audit. CO1-U (15)
- Or
- (b) Explain in detail about steam traps and their application. CO2-U (15)