

## Question Bank (Energy Auditing & Management)

1. Explain various forms of energy and Law of conservation of energy.
2. Write a note on BEE and its working.
3. Explain the elements of energy management in detail.
4. Write a short note on Demand side Management.
5. Explain the various principle of Energy Management.
6. Explain the characteristics of solid, liquid and gaseous fuels – energy point of view.
7. Which fuel option is better for the storage and transportation? Describe each reason.
8. What are the safety measures for the liquefaction and gasification to be taken?
9. Compare short and long AC Transmission lines. What is the benefit of HVDC line?
10. Classify Energy Storage Systems. Explain any one in detail.
11. Write a note on pumped hydro storage system.
12. Write a note on compressed gas energy storage system.
13. Explain the flywheel energy storage system with diagram and equation.
14. Classify various electrical and magnetic energy storage systems.
15. What is ROI, IRR? Explain in detail.
16. What are the benefits of energy management?
17. What are the reasons for Harmonics in supply system? Explain its remedies.
18. Explain Voltage Sag and its effects.
19. Explain various types and walkthrough energy audit.
20. Write a note on: Power Factor Reliability analysis of power system.
21. What are the needs of energy planning and audit?

22. Explain the role of energy manager.
23. Explain the role of energy auditor and the things to be considered while auditing.
24. Write a short note on i) benchmarking & ii) force field analysis.
25. List the various equipments required for energy audit.
26. Explain energy audit methods for the Induction motor.
27. Describe the procedure for energy audit, step by step.
28. Explain the energy audit and its analysis for Illumination system.
29. Explain the energy audit and its analysis for Boiler and its allied.
30. Explain the energy audit and its analysis for Air Conditioning System.
31. Explain the energy audit and its analysis for Pump sets and Compressors.
32. How can one optimize the input energy requirement and increase efficiency?
33. What are the principles of energy management?
34. What is the need for managerial skills in energy management?
35. What do you mean by energy audit?
36. Explain how matching energy usage to requirement can enhance energy efficiency
37. List any one energy audit instrument used for power measurement and one for flue gas measurement along with parameters to be measured?
38. What is the significance of an energy policy?
39. How do you classify energy conservation measures?
40. Define 'energy management'.
41. List steps involved in pre-audit phase.
42. What is the objective of energy management?
43. Define the energy audit as per the energy conservation Act 2001?
44. What do you understand by 'plant energy performance' (PEP)?
45. What are fuel substitution and list one example of fuel substitution?
46. Briefly explain with examples on fuel and energy substitution

47. Distinguish between 'preliminary energy audit' and 'detailed energy audit'?
48. Give a typical energy audit reporting format.
49. List steps involved in 'detailed energy audit'.
50. Write down the steps involved in 'Energy management Strategy'?