Question Bank of EMI

Branch EEE Sem III

1. What is the difference between Accuracy and Precision?
2. Why Hay's bridge is used? What is its limitation?
3. Write down comparison between spring control and Gravity Control?
4. What are the advantages of kelvin's double bridge method?

5. Which Analog Instrument is suitable for measurement of DC voltage and current only?
6. Write down advantage and disadvantage of this system?
7. What are the sources of error in bridge circuit?
8. What is compensation phenomenon in Single phase Energymeter?

9. What is shielding and grounding?
10. Why Hay's bridge is used?
11. What is its limitation of Hay's bridge?
12. Why we need Electrostatic type instrument?

13. Write down types of Moving Iron system?
14. Why we need induction type instrument?
15. What is the working principle of Electrostatic instrument?
16. What is the advantage of Electrostatic Instrument?
17. How Controlling torque is produced in single phase power factor meter?
18. What is the shape of scale in spring controlled moving iron instrument?
19. What is transfer Instrument?
20. Why Electrodynamometer type instrument is called transfer instrument?

21. Write short notes on
a) Accuracy and Precision b) Systematic Error
c) Pivot less supports

22. Explain Generalized Instrument Block diagram?

23. Briefly explain about three forces in Electromechanical indicating instrument?

24. Explain different types of error that can be induced in system.

25. What is damping? Write down Comparison among different Damping methods and their suitability.

26. Which Instrument can be used for AC only?
27. Explain operating principal and torque equation of that system in brief with diagram.
28.Briefly explain shape of the scale of that instrument.
29.Derive torque Equation for PMMC Instrument.

30.Why it is required to extend the range of an Analog Instrument?

31. Explain extension of ranges for both PMMC Voltmeter and Ammeter?

32. Which Instrument can be used for AC and DC both? Explain operating principal and torque equation of that system in brief with diagram. Briefly explain shape of the scale of that instrument.

33. What is the working principle of Induction type instrument. Write down limitation of Moving iron type instrument.

34. Describe Advantage and Disadvantages of Moving Iron and Electrodynamometer type instrument.

35. Explain Operating Principal and Torque Equation of Moving Iron Single phase Power factor meter?
36.What are the Sources of Error in Electrodynamic type Wattmeter Instrument?

37. Explain Operating Principle and Torque equation of Single phase Induction type Energymeter?
38.Why Braking Magnet is used? What is creeping?
39. Derive expression of Power in Electrodynamic Wattmeter Instrument?

40. A 230 V, single phase, watt hour meter has a constant load of 4 A passing through it for 6 hours at unity power factor. If the meter disc makes 2208 revolutions during this period, what is

the meter constant in revolution per kWh. Calculate the power factor of the load if the number of revolutions made by the meter are 1472 when operating at 230 V and 5 A for 4 hours.

41. Explain working principle of different types of electro resonance type frequency meter.

42. Explain Kelvin's Double Bridge Method in brief.

43. Explain Meggar and loss of charge method for Measurement of high resistance.

44. What are the sources of error in high resistance measurement.

45. Write short notes on

1. Anderson Bridge
2. Desauty's Bridge

46. Explain Wagner's Earthing Device suitable diagram?

47. Explain Sources of Error in AC Bridge. How it can be minimized?

48. Which bridge is used to measure low capacitance? Explain the bridge with Phasor diagram.

49. Difference between bridges and AC bridges. Explain the bridge which is used to measure frequency

50. Why wagner's earthing device is required?