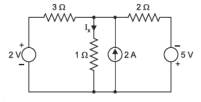
**IMPORTANT QUESTIONS**

1. Explain voltage source and current source?

2. Using mesh current method, determine current Ix in the circuit shown in Fig



3. State Thevenin’s theorem? With suitable example explain Thevenin’s theorem?

4. Derive the relation between phase and line value for 3 phase balance star connection system? Draw its phasor diagram?

5. A choke coil has a resistance of 10 ohm and inductance of 0.05 H is connected in series with a condenser of 100µF. The whole circuit has been connected to 200 V, 50Hz supply. Calculate the impedance, current power factor and power?

6. Derive the expression of power in series RC circuit with net circuit and phasor diagram? Explain power and impedance triangle in series RC circuit?

7. Give the comparison between magnetic circuit and electric circuit?

8. Explain the construction of the transformer and derive its EMF equation?

9. The following data were obtained on a single phase 50 kVA, 2400/120 V transformer:-

O.C.T. (LV Side):- 120 V, 9.65 A, 386 W

S.C.T. (HV Side):- 92 V, 20.8 A, 810 W

Calculate the O.C. and S.C. parameters and full load efficiency at 0.8pf leading.

10. Describe the constructional feature of a DC machine with a net sketch?

11. Discuss the working principle of 3 phase induction Motor?

12. What is slip? Draw the torque slip characteristics of three phase IM?

13. Explain the working of JK flip flop?

14. Explain different types of logic gates with a truth table?

15. Write short notes on Source Transformation and Kirchhoff’s Law.

16. Explain in detail Power in single phase AC circuit.

17. What is leakage flux and Fringing? Explain in detail.

18. Write short notes on De Morgan’s Theorem.

19. Explain the working of SR flip flop?

20. What is Half adder and Full adder? Explain in detail.

21.Draw and Explain VI characteristic of Diode.

22.Explain different region of BJT.