

UNIT- I – D C GENERATOR

PART-A & PART-B QUESTIONS

1. State faraday's law(OCT 2016)
2. Mention any two causes of failure to build up voltage in DC generator (OCT 2016)
3. Discuss about the types of DC generator(OCT 2016)
4. Briefly explain any one method of improving commutation(APR 2016)
5. what is the principle of DC generator?
6. What is self excited DC generator?
7. State the application of DC generator?
8. What is commutation?
9. You have been given a magnet and a coil .when will on emf induced in coil?(OCT 2017)
10. Write a note on lap and wave winding
11. What is sparking?

PART-C QUESTIONS

1. Explain in detail about the principle of operation of dc generator(APR 2018)
2. What is armature reaction? Discuss any two methods of compensating armature reaction.(APR 2018)
3. Explain the load characteristics of dc series generator.(OCT 2017)
4. Explain about the construction of DC generator(OCT 2016)
5. What is commutation? Explain about any two methods improving commutation(OCT 2016)

UNIT- II – D C MOTORS

PART-A & PART-B QUESTIONS

1. State Fleming's left hand rule(APR 2018)
2. Write the application of any two DC motor(APR 2018)
3. Derive torque equation of DC motor(APR 2018)
4. Write briefly about the necessity of starter in DC motor (APR 2018)
5. what is back emf?
6. Mention the purpose of conducting swinburne's test.
7. Draw speed torque characteristics of DC shunt motor and comment n it.
8. Write any two application of DC series and DC shunt motor.
9. Brief the principle of operation of DC motor.

PART-C QUESTIONS

1. Explain about the construction of DC motor.
2. Predetermine the efficiency of DC motor by Swinburne's test.
3. Draw the characteristics of DC shunt motor and give a brief account on each.
4. Explain the methods of speed control of DC shunt motor.
5. Explain about the operation of 3 and 4 point starter.
6. Explain Load test on DC motor.

UNIT- III – SINGLE PHASE TRANSFORMERS

PART-A & PART-B QUESTIONS

1. What is regulation? Mention the condition for maximum efficiency in transformer.
2. What is called all day efficiency
3. Write briefly about the principle of operation of single phase transformer.
4. Draw the phasor diagram for lagging power factor on load condition for single phase transformer.
5. Relate primary and secondary voltage and number of turns in a transformer.
6. Write the emf equation of single phase transformer. why a constant 4.44 is included in this equation
7. Write the emf equation and voltage ratio for 1-phase transformer.
8. Mention regulation efficiency and condition for maximum efficiency in 1-phase transformer.
9. What is meant by voltage regulation.
10. Give three application of auto transformer
11. What are the losses occur in transformer.

PART-C QUESTIONS

1. Determine the equivalent circuit constants in 1-phase transformer.
2. Explain about the principle of auto transformer in detail also mention its application.
3. Explain the process of paralleling two single phase transformer.
4. The test result of a 5KVA, 200/400V, 50Hz single phase transformer are as follows
OC test: 200V, 0.7A, 70W
SC test : 15V, 10A, 85W
Find the equivalent circuit constants.
5. Explain about the construction and operation of 1-phase transformer.
6. Derive the emf equation of transformer.

UNIT- IV – THREE PHASE TRANSFORMER

PART-A & PART-B QUESTIONS

1. Mention any four types of connection 3-phase transformer.
2. Mention the function of conservator, breather and explosion vent in buckolz relay.
3. Draw the connection diagram of 3 phase delta star transformer
4. Write a brief note on breather.
5. List out any three conditions for parallel operation of 3 phase transformer.
6. What are the advantages of V connection of transformer?
7. Explain the necessity for tap changing in a distribution transformer.

PART-C QUESTIONS

1. Discuss about any three methods of cooling in transformer.
2. Explain in detail about the measurement of earth resistance.
3. Explain how load is shared by two transformers having unequal ratings.
4. Explain how dielectric strength and contamination in transformer oil are identified.
5. Write about the operation of bucholz relay.

UNIT- V – STORAGE BATTERIES

PART-A & PART-B QUESTIONS

1. List out the classification of cells.
2. Discuss about the indication of fully charged battery .
3. What is internal resistance of a cell?
4. What do you understand by the term capacity of battery.
5. Draw the constant voltage method of charging battery.
6. Name any two primary battery.
7. State the application of lead acid battery.
8. State the application of alkaline and nickel iron cell.
9. Define ampere hour efficiency?

PART-C QUESTIONS

1. Explain about the chemical action of nickel cadmium cells during discharging and charging(**APR 2018**)
2. Discuss about any two methods of charging of battery .give any two maintenance tips.
3. Discuss in detail about nickel cadmium cell.
4. Explain in detail about indications of battery charged and discharged conditions.
5. Explain about the construction of lead acid battery .
6. Explain about the chemical action of nickel iron cell during discharging and charging,