

EE 8301 Electrical Machines - I

Important 2mark Questions

Unit I

1. Define relative permeability.
2. Give the expression for hysteresis losses and eddy current losses.
3. Define Magnetic flux density.
4. What is the important property of delta max cores?
5. Write down the expression for reluctance. What is its unit?

Unit II

1. Why transformer rating is expressed in kVA?
2. List out the merits and demerits of core and shell type transformer.
3. Define voltage regulation.
4. A certain transformer has a turns ratio of 1 and a coupling coefficient of 0.85. When 2 V ac is applied to the primary, what is the secondary voltage?
5. How do you reduce leakage flux in a transformer?

Unit III

1. Define the synchronous speed. Write the expression also.
2. Define the term pole pitch and coil pitch.
3. State the principle of electromechanical energy conversion.
4. Give examples for continuous energy conversion equipment and force producing devices.
5. What are the categories of electromechanical energy conversion devices?

Unit IV

1. What is meant by armature reaction?
2. State the conditions under which a DC shunt generator fails to excite.
3. What is the purpose of yoke in a D. C machine?
4. What are the methods to improve commutation?
5. On what occasions dc generators may not have residual flux?

Unit V

1. What are the applications of DC motor?
2. Why series motor should to improve commutation?
3. Enumerate the factors on which the speed of a dc motor depends.
4. How will you change the direction of rotation of a dc motor?
5. Why a starter is necessary for a DC motor?