

QUESTION BANK FOR FIRST SEM EXAM 2023-24  
ELECTRICAL MAINTENANCE – PAPER 2

- a) Define:
- a. Resistance
  - b. Cycle
  - c. Amplitude
  - d. Magnetic circuit
  - e. Magnetic flux
  - f. Magnetic poles
  - g. DC Motor
  - h. Inductive Reactance
  - i. Back emf
- b) State the advantages of electromagnetism.
- c) State faraday's first and second laws of electromagnetic induction.
- d) State and explain Lenz's law with diagrams.
- e) Draw a neat and labelled diagram of DC Generator.
- f) What the different types of armature winding.
- g) Give the classification of DC Generator.
- h) State the different parts of a DC Generator.
- i) Explain DC Shunt Generator with Diagram.
- j) State Flemings Right hand rule with diagram.
- k) Explain the function of NVC and OLC.
- l) What are the different types of motors? Also state their applications
- m) Draw a neat and labelled diagram of a three point starter with DC shunt motor.
- n) Explain the methods of speed control in a DC Motor.
- o) The armature of a 4 pole lap wound shunt generator has 128 slots and 4 conductors per slot. The flux per pole is 48mWb. Find at what speed the armature is to be rotated so as to generate 256 Volts.
- p) A coil having resistance of  $50\Omega$  and an inductance of 35mH is connected across 210V, 50 Hz ac supply. Calculate inductive reactance, impedance, current and power factor.