

Chapter 14: Electromagnetism

- The mathematical expression $\Sigma(B \cdot \Delta L) = \mu_0 I$ is known as
 - Lenz's law
 - Ampere's law
 - Gauss's law
 - Faraday's law
- A magnetic field on a charged particles so as to change its
 - Speed
 - Energy
 - Direction of motion
 - All of these
- Shunt resistor is called
 - Bypass resistor
 - Specific resistance
 - Reactance
 - Impedance
- A current carrying coil placed in a uniform magnetic field experiences maximum torque when angle between the plane of coil and magnetic field is
 - 0°
 - 45°
 - 60°
 - 90°
- The brightness spot on CRO screen is controlled by:
 - Anode
 - Cathode
 - Plates
 - Grid
- The relation for maximum value of deflecting couple is given by:
 - $\tau = B/NIA$
 - $\tau = BINA$
 - $\tau = BNA$
 - $\tau = BNA \sin\theta$
- Resistance of the voltmeter should be _____ as compared to the resistance across which it is connected.
 - High
 - Very high
 - Low
 - Very low
- The torque on a current carrying coil is
 - $\tau = NIAB \sin\alpha$
 - $\tau = NIAB \cos\alpha$
 - $\tau = BIL \sin\alpha$
 - $\tau = BIL \cos\alpha$
- The anode in the CRO is
 - Control the no. of waves
 - Control brightness of the spot formed
 - Accelerates and focuses the beam
 - At negative potential with respect to the cathode
- When a small resistance is connected parallel to the galvanometer, the resulting is
 - Voltmeter
 - Ammeter
 - Wheatstone bridge
 - Potentiometer
- Weber is equal to
 - NA^{-1}
 - $Nm^{-1}A$
 - NmA^{-1}
 - $Nm^{-1}A^{-1}$
- Cathode ray oscilloscope works by deflecting a beam of:
 - Neutrons
 - Protons
 - Electrons
 - Positrons
- Sensitivity of the galvanometer can be increased by
 - Decreasing the value of the torsional couple
 - Decreasing the no. of turns
 - Decreasing area of plane of coil
 - Decreasing magnetic field
- If magnetic field is doubled then magnetic energy density becomes
 - Two times
 - Three times
 - Four times
 - Six times
- Grid in cathode ray oscilloscope controls
 - Number of electrons
 - Temperature of filament
 - Frequency of electrons
 - Energy of electrons
- One tesla is equal to
 - NmA^{-1}
 - $Nm^{-1}A^{-1}$
 - $Nm^{-1}A$
 - Nm^2A