Physics - ICS Part 2 Physics Chapter 14 Short Questions Preparation

Q1. State ampere's law.

Ans 1: Ampere's law states that the sum of the quantity for all path elements into which the complete loop has been divided equal times the total current enclosed by the loop.

Q2. Why soft iron cylinder is placed inside the coil of galvanometer?

Ans 1: The soft iron cylinder makes the magnetic field stronger and radial such that into whatever position the coil rotates,the magnetic field is always parallel to its plane.

Q3. What is dead beat galvanometer?

Ans 1: The galvanometer in which the coil comes to rest quickly after current passed through it or the current is stopped from flowing through it,It is called stable or a dead beat galvanometer.

Q4. Why the resistance of an ammeter should be very low?

Ans 1: Am ammeter is connected in a series with a circuit to measure the current,It is connected in series so that total current passing through the circuit should pass through it.If the resistance of the ammeter will be large,it will alter the current of the circuit to great extent and the measurement of current will not be accurate.

Q5. On what factors the induced currents due to motional emf depend.

Ans 1: The current can be increased by the following factors :

1. Using a stronger magnetic field
2. Moving the loop faster
3. Replacing the loop with a coil of many turns

Q6. How can a current loop be used to determine the pressure of a magnetic field in a given region of space?

Ans 1: The torque is experienced by a current carrying loop when placed in magnetic field is t=NIBA cos alpha.
If the loop is deflected in a given region,then it confirms the presence of magnetic field otherwise not.

Q7. Discuss briefly digital multi meter.

Ans 1: It is an digital version of an AVO meter,It is used to measure resistance voltage and current.It has become very popular testing device because the digital values are displayed automatically with decimal point,polarity and the unit for voltage current and resistance,

Q8. How the beam of electron is focused on the screen of CRO?

Ans 1: CRO works by deflecting beam of electrons as they pass through uniform electric field between the two sets of parallel plates,The deflecting beam then falls on a fluorescent screen where it makes a visible spot.

Q9. What is Cathode ray oscilloscope?

Ans 1: Cathode ray oscilloscope is a high speed graph plotting device,It is calledCathode ray oscilloscope because it trace the desired waveform with a beam of electrons which are also called cathode rays.
It mainly consists of

1. Electron gun
2. Vertical deflection plate
3. Horizontal Deflection plates
4. Fluorescent Screen

Q10. Define Lorentz Force.

Ans 1: The combined effect of electric force and magnetic force exerted on charged particle is called Lorentz force.