



SMART TEST SERIES

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Name:		Subject:	Physics-12
Roll # :		Unit(s):	14,
Class:	Inter Part-II	Test:	Type 3 - MCQs + SQs Test - Marks=30
Date:		Time:	

Q.1 Four possible answers A, B, C & D to each question are given. Circle the correct one. (10x1=10)

- A current carrying conductor experiences maximum magnetic force in a uniform magnetic field when it is placed:
(A) Perpendicular to field (B) Parallel to field (C) At an angle of 60° to the field
(D) At an angle of 180° to the field
- Magnetic induction can be measured in units of:
(A) Tesla (B) Gauss (C) Weber/m^2 (D) All of above
- S.I unit of E is NC^{-1} and that of B is $\text{NA}^{-1}\text{m}^{-1}$ then the unit of $\frac{E}{B}$ is:
(A) $\text{m}^{-1}\text{s}^{-1}$ (B) ms^{-1} (C) ms^{-2} (D) ms
- In current carrying long solenoid the magnetic field produced does not depend upon:
(A) The radius of solenoid (B) Number of turns per unit length
(C) Current flowing through solenoid (D) All of above
- When a charged particle is projected opposite to the direction of magnetic field, it experiences a force equal to:
(A) $qvB \cos \theta$ (B) $qvB \sin 90^\circ$ (C) qvB (D) zero
- When a charge is projected perpendicular to a uniform magnetic field, its path is:
(A) Spiral (B) helix (C) Ellipse (D) Circular
- The function of three anodes in a C.R.O is:
(A) To accelerate electrons only (B) To focus the electrons only
(C) To control the brightness of spot on screen (D) To accelerate and focus the electrons
- Galvanometer is sensitive when $\frac{C}{BAN}$ is:
(A) Small (B) Zero (C) Large (D) Negative
- The value of shunt resistance is given by (R_s):
(A) $\frac{I-I_g}{I_g}$ (B) $\frac{I-V_g}{I_g}$ (C) $\frac{IR_g}{I-I_g}$ (D) $\frac{V_g}{I-I_g}$
- In lamp scale arrangement, the distance between scale and galvanometer is:
(A) 3 m (B) 2 m (C) 1 m (D) 0.5 m

Q.2 Write short answers of the following questions.

(10x2=20)

- If a charged particle moves in a straight line through some region of space can you say that magnetic field in the region is zero or non-zero?
- Write down the factors upon which the force on current carrying conductor placed in a uniform magnetic field depends.
- A solenoid 15cm long has 300 turns of wire. A current of A flows through it. What is the magnitude of magnetic field inside the solenoid?
- Can an electron at rest be set in motion with a magnet? Explain.
- How brightness on screen of CRO can be controlled?
- What are the functions of Anodes in CRO?
- What is a CRO and why is it so called?
- Explain briefly the working of electron gun in CRO.
- Why the resistance of an ammeter should be very low?
- Write down the formula for magnetic force on current carrying conductor in a uniform magnetic field of strength $\rightarrow B$