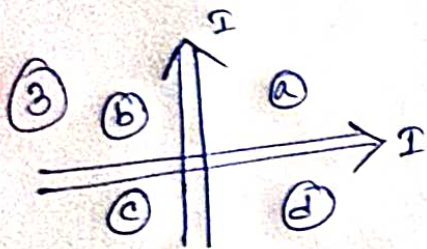


① An electron is moving along positive x -axis in a magnetic field which is parallel to the positive y -axis. (1)
In what direction Magnetic field (B) acting on electron —

- (a) along $-x$ axis (c) along $+z$ axis
(b) along $-z$ axis (d) along $-y$ axis

② An ammeter of resistance 0.81Ω reads upto $1A$. The value of required shunt to increase the range to $10A$ is — (1)
(a) 0.9Ω (b) 0.09Ω (c) 0.03Ω (d) 0.3Ω



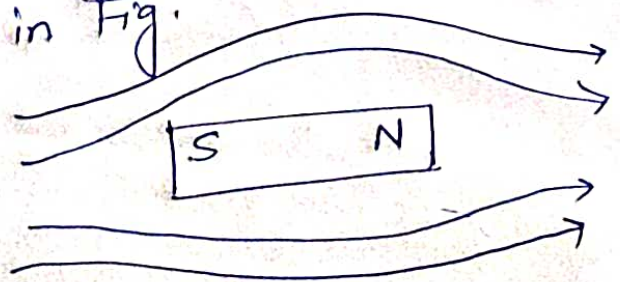
The region of Vertically upward Strongest Magnetic field (B) is — (1)
(a) (b) (c) (d)

④ A Current Carrying wire kept in a Uniform magnetic field will experience a maximum force when it is — (1)

- (a) $\perp$ to B (c) at angle 45° to B
(b) $\parallel$ to B (d) at angle 60° to B .

⑤ Which of the following Cannot modify an external magnetic field (B) as shown in Fig. (1)

- (a) Nickel (b) Sodium chloride
(c) Silicon (d) Copper.



⑥ State Ampere's Circuital Law. How a Galvanometer can be converted into a voltmeter. (1+1)

⑦ Two wires of the same length are shaped into a square of side 'a' and circle with radius 'r'. If they carry same current, then what is the ratio of their magnetic moment. (3)

⑧ Write the effect of temperature on diamagnetic, Paramagnetic and ferromagnetic substances. (2+1)
Write the example of paramagnetic substances.