

Home Assignment

- 1) (i) cyclotron is used to accelerate some kind of charge particle.
- (ii) The ~~force~~ force that accelerates the particle in the cyclotron is both electrostatic and magnetic force called Lorentz force.
- (iii) Conductor shields any charge within from electric fields create outside the conductor.
- (iv) Inside a dee the particle's speed changes.
- (v) $v_{max} = \frac{qBR}{m}$
- (vi) In a cyclotron maximum speed attained by a charged particle is limited by the relativity of mass with speed.

2) (i) (a) Italian electricity researcher Luigi Galvani.

(ii) (a) to detect and measure small electric current.

(iii) (a) $SP = \frac{A}{b} = \frac{NBA}{c}$

(iv) (c) never change the voltage sensitivity.

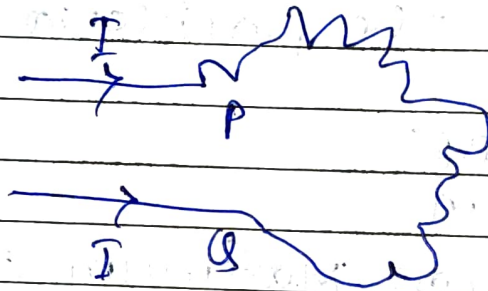
(v) (d) none of these.

(vi) (c) Zero

(3) (i) (a) Both Assertion and Reason are correct and the reason is the correct explanation for Assertion.

(ii) (a) Both Assertion and Reason are correct and Reason is the correct explanation of Assertion.

(iii)



(a) Both Assertion and Reason are correct and Reason is the correct explanation for Assertion.

(iv) (d) both Assertion and Reason are false.

(v) (b) Both A and R are true R is not the correct explanation of A

(vi) (a) Both Assertion and Reason are correct and Reason is the correct explain for Assertion.

(4) (i) (a) an ammeter is connected in series in a circuit and the current through it is negligible.

(ii) (c) infinity

(iii) ~~(b)~~ (a) more

(iv) (d) none of these

(v) (a)
$$S_p = \frac{Q}{l} = \frac{NBA}{C}$$