

Home Assignment - Moving Charges and Magnetism

- 4
- i Some kind of charged particles
 - ii ~~both electrostatic and magnetic force called Lorentz force~~ Only Magnetic
 - iii The particle's kinetic energy changes
 - iv $r_{\text{max}} = \frac{qBz}{m}$
 - v None of these
 - vi None of these

- Q
- i Italian electricity researcher Luigi Galvani
 - ii to detect and measure small electric current
 - iii $S_i = \frac{\Phi}{i} = \frac{NBA}{C}$
 - iv may not change the voltage sensitivity
 - v $d\phi = \left(\frac{C}{BNA}\right) \Phi$

vi directly proportional to $\sin \theta$

- Q i
- i Both A and R are true and R is correct explanation of the Assertion
 - ii Both A and R are true and R is correct explanation of the Assertion
 - iii Both A and R are true
 - iv Both A and R are false

v Both A and R are true but R is not correct explanation of A.

v1 Both A and R are true ~~but~~ and R is correct explanation of A.

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

(2) (c) infinity

(3) (a) - 1000

(4) $i = \left(\frac{C}{RNA} \right) \theta$

5 $S_i = \frac{\theta}{i} = \frac{RNA}{C}$