Phy

1) v along x axis $v = v\hat{i}$

B along y axis $\vec{B} = B\hat{j}$

$\vec{F} = q\vec{v} \times \vec{B}$

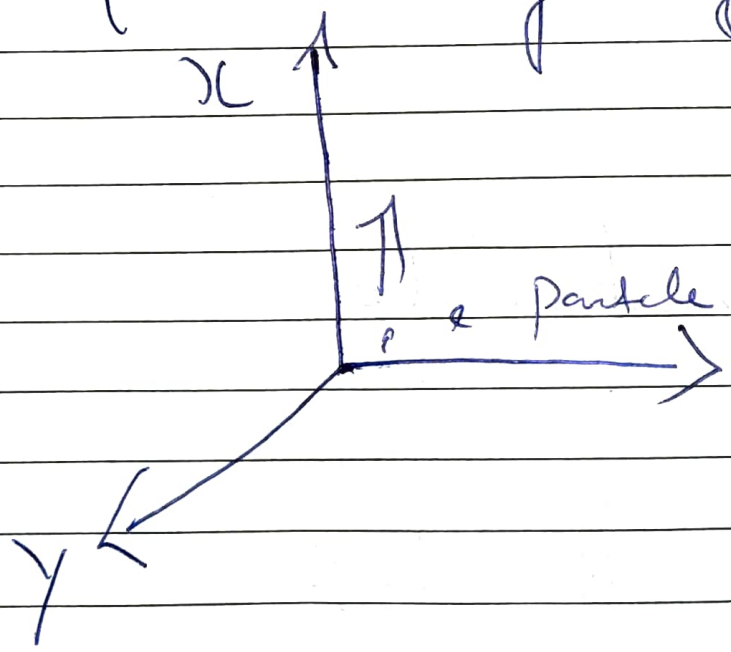
$\vec{F} = q(v\hat{i} \times B\hat{j})$

$\vec{F} = qvBk$

force is acting along ~~z axis~~

(2) By flemig left hand rule Magnetic field

Must be along negative z axis



(3) IN

$B = \frac{F}{qvsin\theta}$

$F = IN / C - 1 (V = 1\ ms-1 \theta = 90$

$SI = \frac{IN}{1.C.1ms-1 \cdot Sin90}$

$INA^{-1}M^{-1} = J$ dala

4 $T = \frac{2\pi m}{qB}$

$f = \frac{1}{T}$

$f = \frac{qB}{2\pi m}$

B and q are same for e and p

$f \propto \frac{1}{m}$

Mass of e is Smaller than p

So it will have high frequency

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(5) When an electron enters normal to field direction the trajectory is circular

electron enters 30° to field direction trajectory is helical