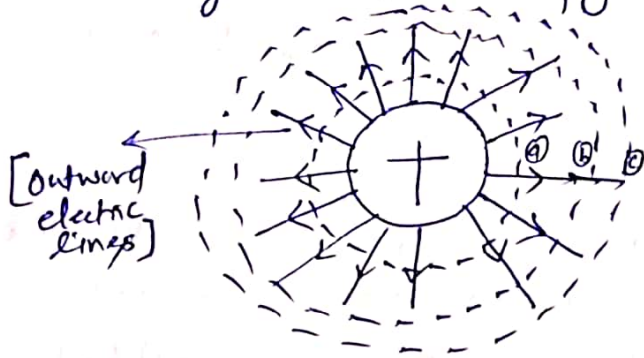


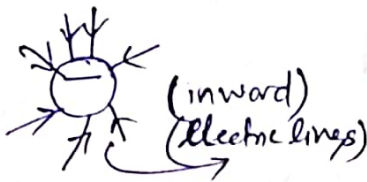
Defⁿ of Electric field: →
In easy language: →

{ For those students who has not attended Basic classes. }
 Date: 01/04/20 [ECE-6th & 4th SEM]

→ if charge is placed somewhere (isolated state), then it has a region as shown in figure below



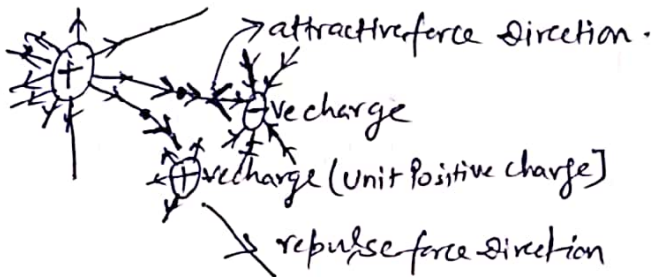
Dotted line shows this region it is gradually increasing, → region - a, - b - c - - - ∞ (toward infinity).



if in this region a charge enters, whether it is ⊕ ⊙ ⊖ then force act on this.

if ⊕ve charge enters then repulsive force act
 if -ve charge enters then attractive force acts.

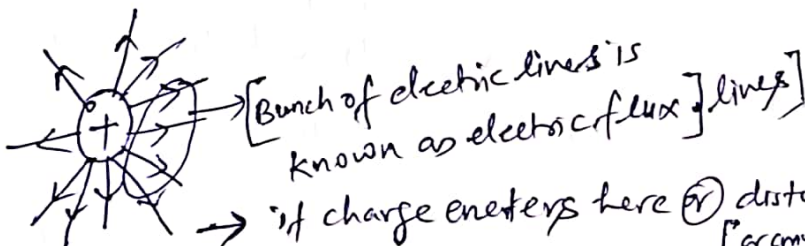
this is known as electric ~~field~~ force b/w the charge



In simple language if force applied on unit Positive charge then it is known as electric field, so $E = \frac{F}{Q}$

So we know, $F = K \frac{Q_1 Q_2}{r^2}$ (But don't know the direction) $Q = 1 \text{ Coulomb}$
 { i.e. we have to study in this subject }

{ So the direction is defined as outward or inward. } i.e. repulsive or attractive?



so $E = \frac{K \cdot Q_1 \cdot Q_2}{r^2}$

→ if charge enters here ⊙ disturbing this region then it is known, [any other charge feels this region then it is also..]

known as electric field.

→ Bunch of electric lines in particular area is known as electric flux density.

Date: 01/04/20