

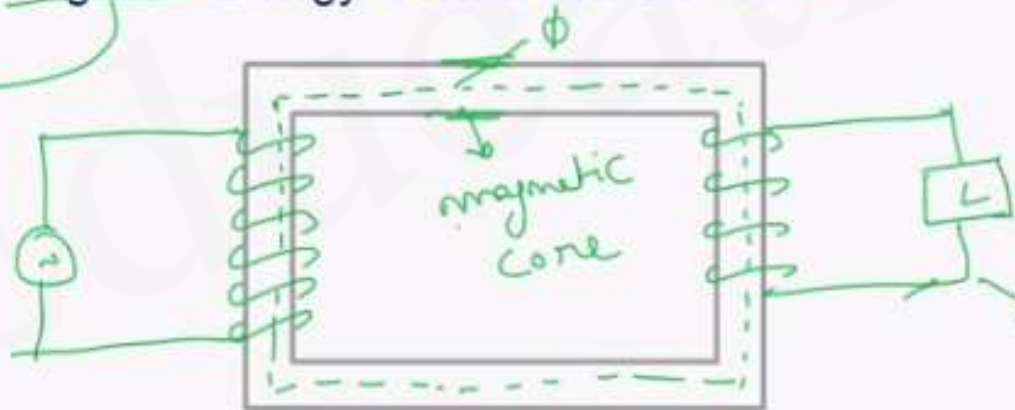
Transformers —

Introduction:-

• A Transformer is a static device Which transfers electrical energy from one electrical circuit to another electrical circuit with out changing frequency and magnitude of power

- Constant frequency device → $f = \text{constant}$
- Constant Power device ✓
- Electromagnetic Energy Conversion Device →

Externally T/F
not an energy conversion device



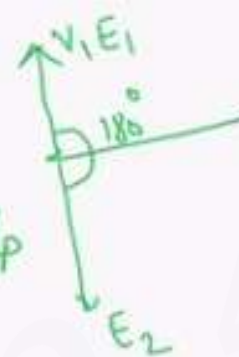
A winding connected to source is primary winding

which is connected to load is secondary

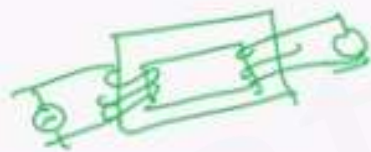
Transformers

- Phase shifting Device $\rightarrow$ i/p and o/p $\rightarrow 180^\circ$

Transformer $\rightarrow$ the phase diff b/w i/p and o/p is 180°



- Single Excited Device



- Constant Flux Device

$$\Phi = B A$$

$\downarrow$
depends on material

we can not change

