# Rectification :-

The process of converting AC wave form into DC wave form is called rectification.

**Rectifier**

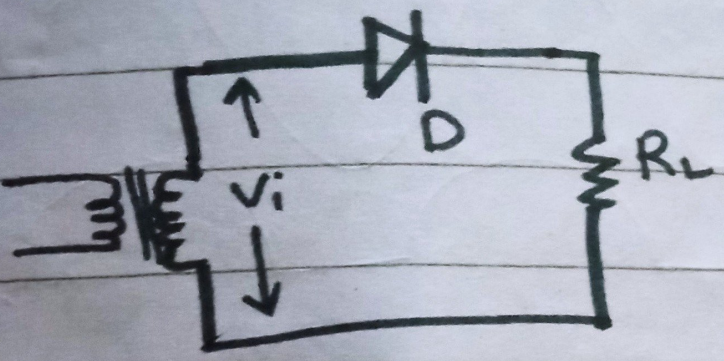
The device used for this purpose is called rectifier

## Two common method of rectification

- **Half wave rectification:**

During positive Half cycle 0 - T/2 The diode is forward baised and offere very low resistance

to current and it flow through resistone R. This current causes a potential drop across the resister R, in accordance with alternating input.

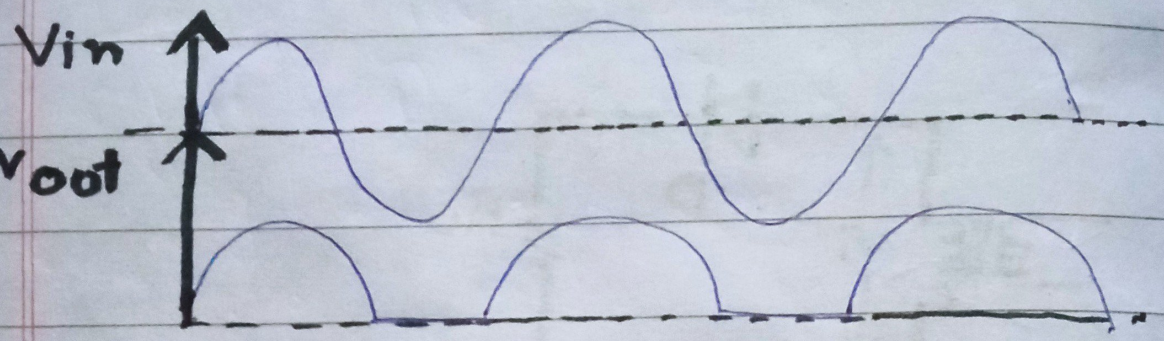



## Negative Half cycle.

During negative half cycle diode is reversed biased and it offer very high resistan and no current flow through R and potential drop across is almost zero.

This process is repeated

The coutpad voltage is not smooth it appeau in pulses.
These pulses or rippels can be made smooth by using filter



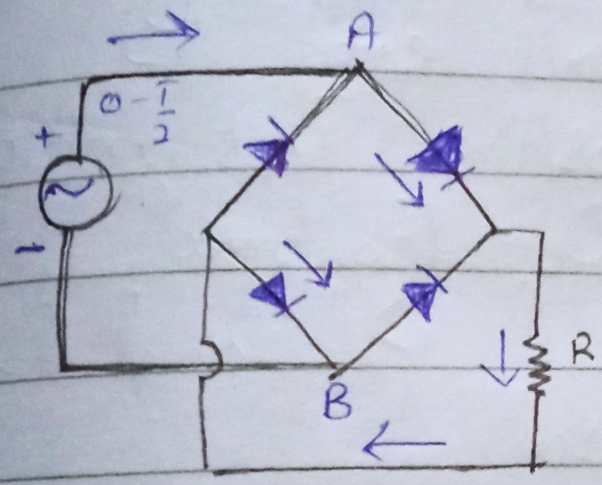

## Full Wave Rectification

The rectifier in which both input cycles appeaus as coutput D.C is called full wave rectificantio

It contain four diode $D_1, D_2, D_3, D_4$ connected form bridge

The AC supply to be rectified is applied diagonally to the opposite end of the bridge through transformer or directly

Between other two end the load resistor $R_L$ is connected.




## • For positive half cycle:

During the positive half cycle of the input voltage End A become positive(+) and End B becom negative(−) They make diode $D_1$ and $D_3$ forward beased while $D_2$ and $D_4$ are reversed

baised. Therefor only $D_1$ and $D_3$ conduct.

## Negative half cycle:-

During the negative half cycle the end A become negative and end B become positive. This make $D_2$ and $D_4$ forward baised and $D_1$ and $D_3$ reversed baised.

Therefor only $D_2$ and $D_4$ conduct

Now again current flow from A to B through load resistor in same direction.

Therefore output D.C. is obtained across the load.

DATE: __/__/20