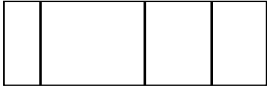



## Measurement of Alternating Quantities.

Alternating current shows heating effect only, hence meters used for measuring ac are based on heating effect and are called hot wire meters (Hot wire ammeter and hot wire voltmeter)

ac measurement	dc measurement
(1) All ac meters read r.m.s. value.	(1) All dc meters read average value
(2) All ac meters are based on heating effect of current.	(2) All dc meters are based on magnetic effect of current
(3) Deflection in hot wire meters : $\theta \propto i_{rms}^2$ 	(3) Deflection in dc meters : $\theta \propto i$ 
(non-linear scale)	(Linear scale)

Note: ac meters can be used in measuring ac and dc both while dc meters cannot be used in measuring ac because the average value of alternating current and voltage over a full cycle is zero.