* V = Vo sin (ω t + Φ) where ‘ω’ is the angular frequency and ‘Φ’ is the initial phase.
* Current in Resistive Circuits is ‘in phase’ with the Voltage and instantaneous current is simply instantaneous voltage divided by resistance.
* The average of sinusoidal functions over time is zero. Therefore, the quantity of importance is Root Mean Square of a function of such kind; the value of which is the amplitude of the function divided by the square root of 2.
* The Root Mean Square value of voltage and current naturally comes when Power derivations are done.
* The inductive reactance is equal to ‘ωL’ where L is the inductance of the coil in Henry. Naturally, this reactance increases with an increase in frequency.
* In a pure Inductive Circuit, current lags by π/2 OR voltage leads by π/2.
* If V = Vo sin (ω t + Φ), then, current can be represented by I = Vo/XL sin (ω t + Φ - π/2). XL is the inductive reactance. This equation clearly illustrates the current lags by T/4.
* The net power consumed by a purely inductive circuit is zero. For half the cycle energy is stored in the magnetic field inside the coil, and for the remaining half, this energy is released by the coil.