



e-Edge Education Centre, www.eeeclases.info

Time-1.30hrs.

Subject-Physics.

Class-XII

MM-21

1. Name the quantity which has unit weber/ampere. [1]
2. A bar magnet falls from height 'h' through a metal ring. Will its acceleration be equal to 'g'? Given reason for your answer? [1]
3. The instantaneous voltage from an a.c. source is given by $E = 300 \sin 314t$. What is the r.m.s. voltage of the source? [1]
4. How much is the phase difference between the applied a.c. voltage and current in the LCR circuit at resonance? [1]
5. What is Lenz's Law? Is this in accordance with the law of conservation of energy? [2]
6. Discuss the phase relation between current and emf in an a.c. circuit containing a pure inductance coil only. [2]
7. What are eddy current? Write any two applications of eddy current [2]
8. Show average power consumed in an circuit containing pure an ideal inductor is zero.
9. Find relation between critical angle and refractive index of medium. [2]
10. Explain with the help of a labelled diagram, the principle, construction and working of a transformer. Why is the coil of transformer laminated? [3]
11. Derive lens maker's formula for a thin a convex lens. [3]