

SHAMBHUNATH INSTITUTE OF ENGINEERING & TECHNOLOGY

Important Theory Questions for Unit-4

Sub- Basic Electrical Engineering (NEE-101)

- Q (1). What do you mean by earthing of equipment and devices? Explain types of earthing.
- Q (2). Why do we need earthing of equipment and devices and what are the important safety issues?
- Q (3). Draw and explain B-H curve or draw and explain Hysteresis curve.
- Q (4). Write short notes on following:
a) Hysteresis loss
b) Eddy current loss
- Q (5). Explain similarities and dissimilarities between electrical and magnetic circuits.
- Q (6). Explain principle and working of transformer or power transformer or single-phase transformer. Also write its different types. Derive its emf equation and transformation ratio.
- Q (7). What do you mean by ideal transformer? or What are the assumptions for ideal transformer.
- Q (8). Show that : $(kVA_{max}) = (kVA_{rated}) \sqrt{\frac{W_{iron}}{W_{cu FL}}}$
- Q (9). Derive the condition for maximum efficiency of single-phase transformer.
- Q (10). Explain principle and working of single-phase auto-transformer and Writes its applications.