Assignment – Lecture 62

1.

A 5 KVA, 50 Hertz single phase transformer has primary and secondary turns of 120 and 80 respectively. At a certain flux density, the induced EMF per turn in the primary is 2.5 V. Determine

i) The primary and secondary voltages

ii) The primary and secondary currents on Full Load

2.

A single phase transformer has 1000 turns on its primary and 400 turns on the secondary side. An AC voltage of 1250 V, 50 Hertz is applied to its primary side, with secondary open circuited. Calculate

i) The secondary EMF

ii) Maximum value of flux density in the core

Given that the effective cross sectional area of core is 60 cm²