

PHYSICS

31. (1)

For resonant frequency to remain same LC should be const. LC = constant

$$\Rightarrow$$
 LC = L'×2C \Rightarrow L' = $\frac{L}{2}$

32. (1)

Laminated core provide less area of crosssection for the current to flow. Because of this, resistance of the core increases and current decreases thereby decreasing the eddy current losses.

33. (2)

$$N_p = 140$$
, $N_s = 280$, $I_p = 4$ A, $I_s = ?$

For a transformer, $\frac{I_s}{I_p} = \frac{N_p}{N_s}$

$$\frac{I_s}{4} = \frac{140}{280} \Rightarrow I_s = 2 \text{ A}$$

34. (3)

35. (1)

36. (2)

37. (1)

38. (1)

39. (1)

40. (3)

