10 Transformer Power Equation Ramped Questions (Vp × Ip = Vs × Is)

1. A phone charger transformer takes in 240 V and 0.2 A from the mains supply. The secondary voltage is 12 V. Calculate the secondary current.
2. A laptop charger transformer has a primary voltage of 230 V and a primary current of 0.5 A. The secondary voltage is 19 V. Calculate the secondary current.
3. A garden lighting transformer supplies 24 V and 5 A to the lights. The primary voltage is 240 V. Calculate the primary current.
4. A transformer in a school science lab has a primary voltage of 230 V and a primary current of 1.2 A. The secondary current is 8 A. Calculate the secondary voltage.
5. A factory machine requires a supply of 110 V and draws a current of 20 A. The transformer is connected to a 220 V supply. Calculate the primary current.
6. A transformer supplying a railway system takes 500 A from a 25000 V supply. The secondary voltage is 500000 V. Calculate the secondary current.
7. A power station transformer receives 11000 V and 150 A. It increases the voltage to 400000 V. Calculate the secondary current.
8. A transformer supplying floodlights delivers 48 V and 25 A. The primary current is 2 A. Calculate the primary voltage.
9. A transformer connected to a wind turbine has a primary voltage of 800 V and a primary current of 300 A. The secondary current is 6 A. Calculate the secondary voltage.
10. A National Grid transformer receives 400000 V and 120 A. It supplies a town at 11000 V. Calculate the secondary current delivered to the town.