Electricity Class 12

Key for the Problems

1. $I = 5\,\text{A}$
2. $V = 10\,\text{V}$
3. $v_d = 2.21 \times 10^{-4}\,\text{m/s}$
4. $R = 3.4\,\Omega$
5. $\rho = \frac{m}{ne^2\tau}$
6. $C = 0.1\,\text{S}$
7. $J = 2.5 \times 10^6\,\text{A/m}^2$
8. $\mu = 5 \times 10^{-5}\,\text{m}^2/\text{V\cdotps}$
9. $\rho = 1.122 \times 10^{-8}\,\Omega \cdot m$
10. $\alpha = 0.0039\,^\circ\text{C}^{-1}$
11. $R_s = 9\,\Omega$
12. $R_p = 0.92\,\Omega$
13. $P = 24\,\text{W}$
14. $V = 10\,\text{V}$
15. $r = 0.2\,\Omega$
16. $I = 0.45\,\text{A}$
17. $I = 1\,\text{A}$
18. $I = 0.6\,\text{A}$
19. $I_4 = 1\,\text{A}$
20. $S = 4.5\,\Omega$
21. $S = 7.5\,\Omega$
22. $V = 0.5\,\text{V}$
23. $\frac{E_1}{E_2} = \frac{2}{3}$