

1. Describe the types of Galvanic cells and the methods of corrosion control. (20%)
2. Explain the following terms. (30%)
 - (1) solid solution
 - (2) Meissner effect
 - (3) Fermi level
 - (4) stacking fault
 - (5) amorphous
 - (6) Kirkendall effect
3. Draw the ferromagnetic hysteresis and explain it. (20%)
4. Explain the spinodal decomposition in terms of the free-energy curves. (15%)
5. Describe the solution hardening, and texture strengthening. (15%)