VLSI Technology

Assignment 1

Answers:

Part 1:

1. (c)
2. (a)
3. (d)
4. (a) and (c)
5. (b)
6. (c)

Part 2:

1. Oxygen, quartz crucibles
2. Expands on freezing, defects
3. Minimize the boundary layer problem
4. Increases, decreases
5. Halogen pitting
6. Solid-state diffusion and gas-phase autodoping
7. Bind mobile charges, reduce OISF and gettering
8. Nitrogen, reduce fixed oxide charge
9. Vacancies, interstitials, vacancy-interstitial pairs (Frenkel pairs) and impurity
10. Linearly, parabolically