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**120 Micro Electronics**

Test 2 Review

Gates Chapter 19 and 20

1. Pure \_\_\_\_\_\_\_\_\_\_\_\_material is Germanium and Silicone
2. Covalent bonds break from semiconductor material allowing electrons to flow under\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, one of the problems of semiconductors
3. \_\_\_\_\_\_\_\_\_\_\_represent the absence of electrons in the valance shell.
4. A difference of potential applied to a pure semiconductor material, creates a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_toward the positive terminal and a \_\_\_\_\_\_\_\_\_\_\_\_flow (movement) toward the negative terminal.
5. Current flow in a semiconductor material consists of both electron \_\_\_\_\_\_\_\_\_\_\_\_and hole \_\_\_\_\_\_\_\_\_\_\_
6. N-Type material- \_\_\_\_\_\_\_\_\_\_\_are the majority carrier. In P-type material \_\_\_\_\_\_\_\_\_\_\_\_\_\_are the majority carrier.
7. Chap 20- the region near the junction is referred to as the \_\_\_\_\_\_\_\_\_\_\_\_ region.
8. The charge at the junction creates a voltage called the \_\_\_\_\_\_\_\_\_\_\_\_ voltage
9. Barrier voltage is\_\_\_\_\_\_\_\_\_ for germanium and \_\_\_\_\_\_\_\_\_\_for silicon
10. Current flows through a diode only when the\_\_\_\_\_\_\_\_\_\_\_\_ voltage is greater than the barrier voltage.