

- 1) What is the most commonly used semiconductor material?
- 2) What type of chemical bond does Si make with other Si atoms?
- 3) What are the three solid forms that Si material makes?
- 4) What is n_i ?
- 5) What does “intrinsic mean”?
- 6) The bandgap energy is what?
- 7) What are the two types of charge carriers in a solid?
- 8) This term relates electric field to charge carrier velocity:
- 9) What is a common donor impurity for Si?
- 10) Does a donor impurity have more of less valence electrons than Si?
- 11) Does a donor impurity make Si n-type or p-type?

- 12) What is a common acceptor impurity for Si?
- 13) Does an acceptor impurity have more or less valence electrons than Si?
- 14) Does an acceptor impurity make Si n-type or p-type?
- 15) N_A refers to:
- 16) N_D refers to:
- 17) Does intrinsic Si have high or low resistance at absolute zero?
- 18) What are the two types of current flow in an unbiased semiconductor material above absolute zero?
- 19) How does resistivity relate to resistance?
- 20) Charge carrier velocity saturation occurs because: