Home Assignment Unit-1

1. What is Reverse Breakdown?
2. Why Si is preffered over Ge for manufacturing of electronic devices?
3. Explain the effect of temperature on conductivity of a Semiconductor.
4. Calculate the dynamic forward and reverse resistance of a p-n junction when the applied voltage is 0.25V at T = 300k given $I_0 = 2\mu A$.
5. Define Bulk resistance of the diode.
6. Define depletion layer in a diode.
7. Classify the materials with help of energy band.
8. Compare the properties of Si and Ge semiconductor.
9. Calculate the dynamic forward resistance of p-n junction diode when applied voltage is 0.80V at temperature of 43 degree celsius and reverse saturation current is 8 uA?

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