

SEM V MOCK TEST SSP

1. There is no hole current in good conductors because
 - a) Did not have valence band
 - b) They do not have conduction band
 - c) They have neither valence nor conduction band
 - d) **Their valence and conduction bands overlap**
2. Doping material are called impurities because they
 - a) Make semiconductor less pure
 - b) Change chemical properties
 - c) **Alter crystal structure**
 - d) Change the number of charge carries
3. The conductivity of semiconductor.
 - a) Always decreases with increase in temperature
 - b) **Increases with increase in its temperature**
 - c) Decreases with addition of impurities
 - d) Do not depend upon temperature.
4. if the temperature of semiconductor is increased the number of electrons in the valence band will
 - a) Increase
 - b) **decrease**
 - c) remain same
 - d) Not get affected
5. Why do conduction electrons have greater mobility than that of holes?
 - a) They carry negative charge
 - b) they carry positive charge
 - c) experience less collision
 - d) **need less energy for moment**
6. Which of the following gives the correct variation of the conductivity of semiconductors?
 - A. Increases when it is doped with trivalent or pentavalent impurity**
 - B. Increases when it is doped with tetravalent impurity
 - C. Increases when it is topped with a trivalent impurity and decreases when it is doped with pentavalent impurity
 - D. decreases when it is doped with trivalent impurity and increases when it is doped with pentavalent impurity.
7. The motion of hole in the doped semiconductor is
 - a) Along the motion of electron
 - b) **Against the motion of electron**
 - c) Perpendicular to that of electron
 - d) At random irrespective of electron

8. Which of the following are majority carriers?
- a) Holes in n type of semiconductor
 - b) **electrons in n type of semiconductor**
 - c) Electrons in p type of semiconductor
 - d) Both b&c
9. With the increase in temperature the width of the forbidden gap will
- a) **decrease**
 - b) increase
 - c) remain same
 - d) become zero
10. The impurity added in Germanium crystal to make n type semiconductor is
- a) Aluminium
 - b) gallium
 - c) iridium
 - d) **phosphorus**
11. In a p type semiconductor the majority carriers of current are
- a) **Holes**
 - b) electrons
 - c) protons
 - d) neutrons
12. Depletion layer consists of
- a) Electrons
 - b) protons
 - c) mobile ions
 - d) **immobile ions**
13. silicon and copper are cooled to a temperature of 300 Kelvin then resistivity.
- a) **For silicon increases and for copper decreases**
 - b) For copper increases and for silicon decreases
 - c) Decreases for both silicon and copper
 - d) Increases for both silicon and copper
14. Semiconductors are formed if the bonds are
- a) Vendor walls
 - b) ionic
 - c) metallic
 - d) **covalent**
15. In a semiconductor diode, the barrier potential offers opposition to only
- a) **Majority carrier in both regions**
 - b) Minority carrier in both regions
 - c) Free electron in the n region
 - d) Holes in the p region