**Essential of Electrical & Electronic Engineering**

**Online objective exam for the subject EE&EE (Unit -V)**

**Year & Branch: I/IV B.tech, ECE-A**

**Attempt all questions**

**Each questions carries of one mark**

**Reg. No:**

**Name of student:**

**1. The most commonly used semiconductor is**

1. Germanium
2. Silicon
3. Carbon
4. Sulphur

**Answer : 2**

**2. When a pentavalent impurity is added to a pure semiconductor, it becomes**

1. An insulator
2. An intrinsic semiconductor
3. p-type semiconductor
4. n-type semiconductor

**Answer : 4**

**3. A hole and electron in close proximity would tend to**

1. Repel each other
2. Attract each other
3. Have no effect on each other
4. None of the above

**Answer : 2**

**4. In a semiconductor, current conduction is due to**

1. Only holes
2. Only free electrons
3. Holes and free electrons
4. None of the above

**Answer : 3**

**5. The random motion of holes and free electrons due to thermal agitation is called**

1. Diffusion
2. Pressure
3. Ionisation
4. None of the above

**Answer : 1**

**6. The battery connections required to forward bias a pn junction are**

1. +ve terminal to p and –ve terminal to n
2. -ve terminal to p and +ve terminal to n
3. -ve terminal to p and –ve terminal to n
4. None of the above

**Answer : 1**

**7. A reverse bias pn junction has**

1. Very narrow depletion layer
2. Almost no current
3. Very low resistance
4. Large current flow

**Answer : 2**

**8. A pn junction acts as a**

1. Controlled switch
2. Bidirectional switch
3. Unidirectional switch
4. None of the above

**Answer : 3**

**9. With forward bias to a pn junction , the width of depletion layer**

1. Decreases
2. Increases
3. Remains the same
4. None of the above

**Answer : 1**

**10. In an intrinsic semiconductor, the number of free electrons**

1. Equals the number of holes
2. Is greater than the number of holes
3. Is less than the number of holes
4. None of the above

**Answer : 1**

11.Zener diodes are also known as  
a) Voltage regulators  
b) Forward bias diode  
c) Breakdown diode  
d) None of the mentioned  
Answer: c

**12. A transistor has**

1. one pn junction
2. two pn junctions
3. three pn junctions
4. four pn junctions

**Answer : 2**

**13. The base of a transistor is ………….. doped**

1. heavily
2. moderately
3. lightly
4. none of the above

**Answer : 3**

**14. A JFET is also called …………… transistor**

1. unipolar
2. bipolar
3. unijunction
4. none of the above

**Answer : 1**

15. **A thyristor (SCR) is a**  
a) P-N-P device  
b) N-P-N device  
c) P-N-P-N device  
d) P-N device  
View Answer

Answer: c

**16. In the SCR structure the gate terminal is located**  
a) near the anode terminal  
b) near the cathode terminal  
c) in between the anode & cathode terminal  
d) none of the mentioned

Answer: b

**17. For an SCR in the forward blocking mode (practically)**  
a) leakage current does not flow  
b) leakage current flows from anode to cathode  
c) leakage current flows from cathode to anode  
d) leakage current flows from gate to anode

Answer: b

**18. For a half wave or full wave rectifier the Peak Inverse Voltage of the rectifier is always**  
a) Greater than the input voltage  
b) Smaller than the input voltage  
c) Equal to the input voltage  
d) Greater than the input voltage for full wave rectifier and smaller for the half wave rectifier

Answer: b

**19. Bridge rectifier is an alternative for**  
a) Full wave rectifier  
b) Peak rectifier  
c) Half wave rectifier  
d) None of the mentioned

Answer: a

**20. A simple diode rectifier has ‘ripples’ in the output wave which makes it unsuitable as a DC** source. To overcome this one can use  
a) A capacitor in series with a the load resistance  
b) A capacitor in parallel to the load resistance  
c) Both of the mentioned situations will work  
d) None of the mentioned situations will work

Answer: b