

March 2026

**Sri Mahalingeswara ITI**

Answer Key

**Duration: 30 Mins****Total Marks: 17****Q.ID: ITISKILL30314Z****1. Which parameter is maintained constant in zener diode?**

- A) Voltage                      B) Resistance  
C) Power                        D) Current

**Answer: A) Voltage****2. What is the effect on the output voltage in a bridge rectifier circuits, with one diode open?**

- A) Very low voltage              B) Half of the rated output voltage  
C) Full output rated voltage    D) No output DC voltage

**Answer: B) Half of the rated output voltage****3. Which impurity is added to form P - type semiconductor material?**

- A) Phosphorus                    B) Arsenic  
C) Antimony                      D) Gallium

**Answer: D) Gallium****4. What is the meaning of maximum safe reverse voltage across a diode?**

- A) Break down voltage          B) Knee voltage  
C) Reverse break down voltage    D) PIV voltage

**Answer: D) PIV voltage****5. What is the output pulse frequency of the full wave rectifier with input frequency of 50 Hz?**

- A) 200 Hz                        B) 60 Hz  
C) 40 Hz                         D) 100 Hz

**Answer: D) 100 Hz****6. What is the disadvantage of the two diode full wave rectifier compared with a bridge rectifier?**

- A) DC output level is higher    B) The need of bulky transformer  
C) Each diode carries half the load current    D) The ripple frequency is higher

**Answer: B) The need of bulky transformer****7. What is the maximum safe reverse voltage rating of a diode?**

- A) Knee voltage                    B) Break down voltage  
C) PIV voltage                    D) Forward break down voltage

**Answer: C) PIV voltage****8. What is the minimum current rating of four diode bridge rectifier to supply load current of 1.8 Amp?**

- A) 2.0 Amp                        B) 0.9 Amp  
C) 1.8 Amp                        D) 5.0 Amp

**Answer: C) 1.8 Amp****9. Which diode is used in low power communication circuits?**

- A) Rectifier diodes                B) Switching diodes  
C) High power diodes            D) Signal diodes

**Answer: D) Signal diodes****10. What is the peak to peak voltage in a bridge rectifier circuit with load current of 10 mA, capacitance of 470 F and 50 Hz supply frequency?**

- A) 0.213 v                        B) 3.567 v  
C) 1.525 v                        D) 2.134 v

**Answer: A) 0.213 v****11. What is the output frequency of the pulsating DC in a two diode fullwave rectifier?**

- A) Same frequency of the A/C input    B) Double the input A/C frequency  
C) Half of the input A/C frequency    D) Three times the input A/C frequency

**Answer: B) Double the input A/C frequency****12. What is the name of the process of converting AC into DC voltage?**

- A) Demodulating                B) Amplifying  
C) Inverting                      D) Rectifying

**Answer: D) Rectifying****13. Which component filter the ripples in the rectifier circuit?**

- A) TRIAC                         B) DIAC  
C) Capacitor                      D) Diode

**Answer: C) Capacitor****14. When does the zener diode begins to conduct in the reverse biased condition?**

- A) After the barrier voltage cancelled    B) Voltage across zener reached 0.3V  
C) When bias voltage reached 0.7V    D) Voltage across it reached the zener voltage

**Answer: D) Voltage across it reached the zener voltage**

15. What is the process of adding impurities to a pure semiconductor material?

- A) Doping
- B) Forming
- C) Etching
- D) Diffusion

**Answer: A) Doping**

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16. Which is the first step followed in troubleshooting of electronic circuit?

- A) Thermal test
- B) Mechanical test

C) Physical and sensory test D) Chemical test

**Answer: C) Physical and sensory test**

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17. Which impurity is added to pure semiconductor to form N-type material?

- A) Boron
- B) Indium
- C) Gallium
- D) Arsenic

**Answer: D) Arsenic**

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