

March 2026

Sri Mahalingeswara ITI

Question Paper

Duration: 30 Mins

Total Marks: 17

ID: ITISKILL30314Z

Student Name: _____	Roll No: _____
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1. What is the minimum current rating of four diode bridge rectifier to supply load current of 1.8 Amp?

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

2. When does the zener diode begins to conduct in the reverse biased condition?

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

3. What is the name of the process of converting AC into DC voltage?

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

4. Which impurity is added to form P - type semiconductor material?

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

5. What is the disadvantage of the two diode full wave rectifier compared with a bridge rectifier?

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

6. What is the output pulse frequency of the full wave rectifier with input frequency of 50 Hz?

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

7. Which diode is used in low power communication circuits?

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

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

- A) Physical and sensory test B) Chemical test

C) Mechanical test

D) Thermal test

9. What is the output frequency of the pulsating DC in a two diode fullwave rectifier?

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

10. What is the meaning of maximum safe reverse voltage across a diode?

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

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

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

12. Which component filter the ripples in the rectifier circuit?

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

13. What is the maximum safe reverse voltage rating of a diode?

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

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

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

15. 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) 2.134 v B) 3.567 v
C) 1.525 v D) 0.213 v

16. What is the effect on the output voltage in a bridge rectifier circuits, with one diode open?

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

17. Which parameter is maintained constant in zener diode?

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