

March 2026

Sri Mahalingeswara ITI

Question Paper

Duration: 30 Mins**Total Marks: 33****ID: ITISKILL32700V**

Student Name: _____ Roll No: _____

1. 6 What is the input impedance of IGBT?

- A) Low B) High
C) Unity D) Infinity

2. Which device is a unipolar transistor?

- A) FET B) IGBT
C) UJT D) BJT

3. Which is the N - channel FET?

- A) Main current flows through N-doped material B) S-terminal connected to positive
C) AC supply connected to drain termin D) Main current flows through P-doped material

4. Why the electronic device IGBT is preferred over the power MOSFET?

- A) Higher driving power requirement B) Low switching speed
C) Higher switching repetition rates D) Suitability for medium power applications

5. What is the advantage of IGBT?

- A) Low efficiency and slow switching B) High efficiency and fast switching
C) IGBT is a gate current driven device D) It has low input impedance

6. Which is the package type for the JFET BFW10?

- A) TO-62 B) TO-82
C) TO-92 D) TO-72

7. What is the main advantages of IGBT over BJT?

- A) Thermal limits are pushed to the edge B) Superior current conduction capability
C) Fast switching speed D) Reverse bias secondary break downs

8. What is the maximum drain- source voltage, VDS for the JFET BF 245B?

- A) 10 V B) 20 V
C) 30 V D) 40 V

9. What is the switching speed of solid state relays?

- A) 1 to 100 nano seconds B) 1 to 100 milli seconds
C) 10 to 60 nano seconds D) 1 to 25 nano seconds

10. What is the maximum forward gate current (I_g) for BFW10 JFET?

- A) 5 mA B) 8 mA
C) 20 mA D) 10 mA

11. What is the advantage of MOSFET?

- A) Slow switching speed B) Fast switching speed
C) Low thermal ionisation of electron-holes D) Higher power gate signal

12. What is the term stands for TRIAC?

- A) Triode Alternate control B) Triode DC semiconductor
C) Triode Access console D) Triode AC semiconductor

13. How gate is biased in JFET?

- A) Dual supply function B) AC supply function
C) Forward biased D) Reverse biased

14. What is the gate current (I_g) of the JFET, when reverse biased?

- A) Practically very low B) Practically unity
C) Practically infinity D) Practically zero

15. Which circuit uses the enhancement type MOSFET?

- A) High power amplifier circuits B) Integrated MOS switching circuits
C) Low power oscillator circuits D) High frequency switching circuits

16. What is the drawback of IGBT compared to the power MOSFET?

- A) Poor switching speed B) Not suitable for power applications
C) Poor current conduction capability D) Higher driving power requirement

17. How the drive circuits for the power MOSFETs are

- coupled?
- A) Using transistors B) Using pulse transformer
C) Using logic circuitry D) Direct coupling method
-
- 18.** What is the advantage of MOSFET?
- A) Low gate signal power B) Superior current conduction capability
C) Very low on-state voltage D) Low driving power
-
- 19.** What is the minimum current ratings of solid state relays available in low power packages?
- A) 100 milli Ampere B) 10 milli Ampere
C) 50 milli Ampere D) Few micro Amperes
-
- 20.** What is the full form of the abbreviation MOSFET?
- A) Medium oscillator signal FET B) Metal organic serial FET
C) Minimum output signal FET D) Metal oxide semiconductor FET
-
- 21.** Which current flows in TRIAC between MT1 and MT2?
- A) Leakage current B) Conventional current
C) Principal current D) Reverse current
-
- 22.** What is the maximum blocking voltage of very high current handling IGBT modules?
- A) 1000 V B) 5000 V
C) 6000 V D) 440 V
-
- 23.** What is the package type for BF 245B?
- A) TO-102 B) TO-72
C) TO-82 D) TO-92
-
- 24.** When does the complementary metal oxide type MOSFET configuration consumes power?
- A) During switching B) Never consumes power
C) Always consumes power D) While it holds its state
-
- 25.** What is the common and popular application of U.J.T?
- A) Relaxation oscillator B) Motor speed controller
C) Voltage regulator D) Multivibrator
-
- 26.** What is the code number of TRIAC?
- A) 2N2646 B) 2N1597
C) BFW10 D) BT136
-
- 27.** What is the maximum specified voltage for the TRIAC TIC 201D?
- A) 1.5 V B) 1.7 V
C) 2.1 V D) 2.5 V
-
- 28.** How many alternating layers are there in IGBT?
- A) 3 layers B) 2 layers
C) 4 layers D) Single layer
-
- 29.** What is the advantage of IGBT?
- A) Fast switching speed B) Low gate signal power
C) Used to isolate logic circuits D) Low driving power
-
- 30.** Which is the property of IGBT?
- A) High efficiency and fast switching B) Low gate signal
C) Low input impedance D) Significant power consumption
-
- 31.** Which insulation layer is used in MOSFET?
- A) Antimony material B) Arsenic material
C) Silicon-di-oxide D) Germanium material
-
- 32.** Which electrical quantity controls the operation of the bipolar transistor device?
- A) Current B) Voltage
C) Energy D) Frequency
-
- 33.** What is the input impedance of IGBT?
- A) High input impedance B) Infinity input impedance
C) Medium input impedance D) Low input impedance
-