POWER-ELETRONICS-EM-33MCQ-TT-1ST

ITI Quiz - - -2026 03:50 PM

Q. ID: ITISKILL32700V

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Answer Key

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

1. Which device is a unipolar transistor?

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

Answer: A) FET

2. How many alternating layers are there in IGBT?

A) 3 layers
B) Single layer
C) 4 layers
D) 2 layers

Answer: C) 4 layers

3. What is the input impedance of IGBT?

A) Infinity input impedence
B) Medium input impedance
C) Low input impedance
D) High input impedance

Answer: D) High input impedance

4. What is the maximum blocking voltage of very high current handling IGBT modules?

A) 6000 V
B) 440 V
C) 1000 V
D) 5000 V

Answer: A) 6000 V

5. How gate is biased in JFET?

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

Answer: C) Reverse biased

6. What is the advantage of IGBT?

A) Low gate signal power
B) Used to isolate logic circuits
C) Fast switching speed
D) Low driving power

Answer: D) Low driving power

7. 6 What is the input impedance of IGBT?

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

Answer: A) High

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

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

Answer: B) Poor switching speed

9. Which current flows in TRIAC between MT1 and MT2?

A) Principal current
B) Reverse current
C) Leakage current
D) Conventional current

Answer: A) Principal current

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

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

Answer: C) TO-72

11. What is the term stands for TRIAC?

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

Answer: B) Triode AC semiconductor

12. What is the gate current (Ig) of the JFET, when reverse biased?

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

Answer: B) Practically zero

13. What is the advantage of MOSFET?

A) Very low on-state voltage
B) Superior current conduction capability
C) Low driving power
D) Low gate signal power requirements

Answer: D) Low gate signal power requirements

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

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

Answer: A) 30 V

15. What is the full form of the abbreviation MOSFET?

A) Metal oxide semiconductor FET
B) Medium oscillator signal FET
C) Minimum output signal FET
D) Metal orgamic serial FET

Answer: A) Metal oxide semiconductor FET

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

A) Thermal limits are pushed to the edge
B) Reverse bias secondary break downs

C) Fast switching speed
D) Superior current conduction capability

Answer: D) Superior current conduction capability

17. What is the common and popular application of U.J.T?

A) Motor speed controller
B) Voltage regulator
C) Relaxation oscillator
D) Multivibrator

Answer: C) Relaxation oscillator

18. Which is the N - channel FET?

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

Answer: D) Main current flows through N-doped material

19. What is the advantage of MOSFET?

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

Answer: A) Fast switching speed

20. What is the maximum forward gate current (Ig) for BFW10 JFET?

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

Answer: A) 10 mA

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

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

Answer: B) Higher switching repetition rates

22. What is the minimum current ratings of solid state relays available in low power packages?

A) 10 milli Ampere
B) 50 milli Ampere
C) Few micro Amperes
D) 100 milli Ampere

Answer: C) Few micro Amperes

23. What is the code number of TRIAC?

A) 2N2646
B) 2N1597
C) BT136
D) BFW10

Answer: C) BT136

24. What is the maximum specified voltage for the TRIAC TIC 201D?

A) 2.5 V
B) 2.1 V
C) 1.7 V
D) 1.5 V

Answer: A) 2.5 V

25. Which circuit uses the enhancement type MOSFET?

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

Answer: C) Integrated MOS switching circuits

26. Which electrical quantity controls the operation of the bipolar transistor device?

A) Frequency
B) Energy
C) Current
D) Voltage

Answer: C) Current

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

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

Answer: A) 1 to 100 nano seconds

28. Which insulation layer is used in MOSFET?

A) Antimony material
B) Silicon-di-oxide
C) Arsenic material
D) Germanium material

Answer: B) Silicon-di-oxide

29. What is the package type for BF 245B?

A) TO-92
B) TO-82
C) TO-72
D) TO-102

Answer: A) TO-92

30. What is the advantage of IGBT?

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

Answer: C) High efficiency and fast switching

31. When does the complementary metal oxide type MOSFET configuration consumes power?

A) While it holds its state
B) Never consumes power
C) Always consumes power
D) During switching

Answer: D) During switching

32. How the drive circuits for the power MOSFETs are coupled?

A) Using logic circuitry
B) Direct coupling method
C) Using pulse transformer
D) Using transistors

Answer: C) Using pulse transformer

33. Which is the property of IGBT?

A) Low input impedance
B) Significant power consumption

C) Low gate signal	D) High efficiency and fast switching	**Answer: D) High efficiency and fast switching**