

**Duration: 30 Mins****Total Marks: 25****Q.ID: ITISKILL9459GH**

1. Which device is a unipolar transistor?

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

**Answer: B) FET**

2. Which semiconductor devices are composed inside the solid state relays?

- A) MOSFETs and IGBTs      B) UJYs and FETs  
C) Diodes and transistors    D) Thyristor and transistors

**Answer: D) Thyristor and transistors**

3. How the solid state relays are working for increased lifetime?

- A) Slower in operations      B) Spark generated during switching  
C) Bulky profile                D) No moving parts to wear and tear

**Answer: D) No moving parts to wear and tear**

4. What is the term stands for TRIAC?

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

**Answer: B) Triode AC semiconductor**

5. What is the code number of TRIAC?

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

**Answer: D) BT136**

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

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

**Answer: D) Principal current**

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

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

**Answer: D) 30 V**

8. What is the function of solid state relay(SSR)?

- A) High gain amplifier        B) High speed switching  
C) Low pass filter              D) High frequency oscillator

**Answer: B) High speed switching**

9. Which characteristics exhibits the current conduction increases while the voltage across the devices decreases in a DIAC?

- A) Positive resistance characteristics      B) Linearity characteristics  
C) Nonlinearity characteristics              D) Negative resistance characteristics

**Answer: D) Negative resistance characteristics**

10. Which is the device made and interconnected by two transistors?

- A) FET                            B) LED  
C) UJT                            D) SCR

**Answer: D) SCR**

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

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

**Answer: B) TO-92**

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

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

**Answer: B) 10 mA**

13. Which is the N - channel FET?

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

**Answer: B) Main current flows through N-doped material**

14. What is the maximum drain current,  $I_D$  for BF 245B?

- A) 35mA                         B) 25mA  
C) 45mA                         D) 15mA

**Answer: B) 25mA**

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

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

**Answer: A) 2.5 V**

16. What will happen in SCR with forward biased condition and gate current is applied?

- A) Forward current conduction stops
- B) Reverse current conduction commences
- C) Forward current conduction commences
- D) Reverse current turned off

**Answer: C) Forward current conduction commences**

17. What is the maximum power dissipation Pmax for BF 245B?

- A) 300 mw
- B) 100 mw
- C) 400 mw
- D) 200 mw

**Answer: A) 300 mw**

18. Which type of defects are occurring in solid state relays?

- A) Intermittent working
- B) Tendency to fail open
- C) Tendency to fail shorted
- D) More sparking

**Answer: C) Tendency to fail shorted**

19. What is the load current handled by the solid state relay that must be mounted to some heatsink to protect the device?

- A) 2 Amp
- B) Greater than 4 Amp
- C) 3 Amp
- D) 1 Amp

**Answer: B) Greater than 4 Amp**

20. What is the maximum current ratings of solid state relays available in high power packages?

- A) 40 Amp
- B) 10 Amp
- C) 100 Amp
- D) 1 Amp

**Answer: C) 100 Amp**

21. Which device generates high frequency radio frequency indeferences by the extremely rapid turn-ON time?

- A) Op-Amp
- B) UJT
- C) Transistor
- D) TRIAC

**Answer: D) TRIAC**

22. What type of control is used for FET?

- A) Frequency controlled device
- B) Voltage controlled device
- C) Resistance controlled device
- D) Current controlled device

**Answer: B) Voltage controlled device**

23. How the lamp failures caused by the high inrush currents in lamp dimmer circuits using TRIAC is eliminated?

- A) Using MCB
- B) By the fuse
- C) Using Safety resistor
- D) By soft start circuit

**Answer: D) By soft start circuit**

24. 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**

25. What is the maximum drain current ID for BFW10?

- A) 10 mA
- B) 20 mA
- C) 5 mA
- D) 30 mA

**Answer: B) 20 mA**