

02:13 P

April 2026

Sri Mahalingeswara ITI

Question Paper

Duration: 30 Mins

Total Marks: 20

ID: ITISKILL4201GX

Student Name: _____	Roll No: _____
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1. What is the maximum current ratings of solid state relays available in high power packages?

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

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

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

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

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

4. 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

5. What type of control is used for FET?

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

6. Which is the N - channel FET?

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

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

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

8. Which is the drain current (I_d) in JFET?

- A) Electron from drain to source
- B) Electron from gate to source

C) Electron from drain to gate

D) Electron from source to drain

9. Which parameter controls the current flow in a BI-polar transistor?

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

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

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

11. Which device is a unipolar transistor?

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

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

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

13. 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

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

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

15. How gate is biased in JFET?

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

16. 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

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

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

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

18. What is the code number of TRIAC?

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

19. What is the term stands for TRIAC?

20. How many layers of PN - junctions are used in SCR fabrication?

- A) Three layer three junctions
- B) Three layer four junctions
- C) Four layer three junctions
- D) Two layer two junctions