

Question block created by wizard

This exam contains 20 questions.

1. What kind of diode symbol is shown here?



- (a) Zener diode.
- o (b) Signal diode.
- o (c) Light emitting diode.

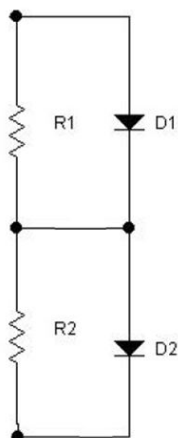
If choice a is selected set score to 1.

2. What is in excess present in N type semi-conductor material?

- o (a) Holes.
- o (b) Non.
- (c) Electrons.

If choice c is selected set score to 1.

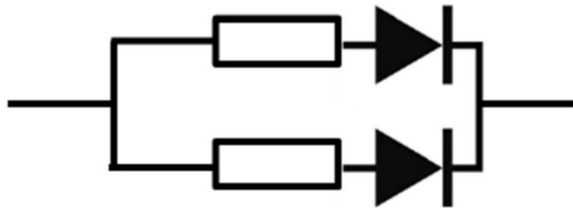
3. See figure. This circuit is used if....



- (a) the maximal reverse voltage of the circuit is too high for one diode.
- o (b) the current of the circuit proves to be too high for one diode.
- o (c) a regulated power supply is required.

If choice a is selected set score to 1.

4. See figure. This circuit is used if....



- (a) the breakdown voltage of one diode proves to be too low for one diode.
- (b) the current of the circuit proves to be too high for one diode.
- (c) a regulated power supply is required.

If choice b is selected set score to 1.

5. What is a requirement to turn a thyristor on?

- (a) A gate current must flow.
- (b) The voltage between Anode and Cathode must be low.
- (c) No conducting current must flow.

If choice a is selected set score to 1.

6. What happens when the voltage across a varistor increases?

- (a) The varistor will stop conducting immediately at its defined voltage level.
- (b) The varistor will start conducting slowly at its defined voltage level.
- (c) The varistor will start conducting immediately at its defined voltage level.

If choice c is selected set score to 1.

7. What is the function of a full bridge (Graetz) rectifier?

- (a) It generates a positive voltage for only the positive cycle on an AC voltage.
- (b) It generates a positive voltage for only the negative cycle on an AC voltage.
- (c) It generates a positive voltage for both positive and negative cycles on an AC voltage.

If choice c is selected set score to 1.

8. A diode, measured both ways with an ohm meter, indicates infinite both ways. What is your conclusion about this diode?

- (a) The diode is good.
- (b) The diode is open and defective.

- (c) The diode is shorted and defective.

If choice b is selected set score to 1.

9. This is the symbol of a....



- (a) P-channel FET.
- (b) N-channel FET.
- (c) P-channel depletion FET.

If choice b is selected set score to 1.

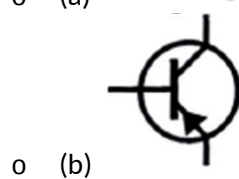
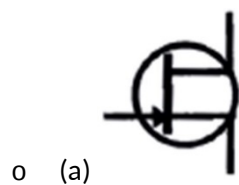
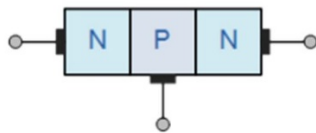
10. See picture. What are the names of the leads of this transistor?



- (a) Anode, Cathode, Gate.
- (b) Drain, Source, Gate.
- (c) Base, Emitter, Collector.

If choice c is selected set score to 1.

11. See picture. Which transistor symbol matches with this physical construction?





- (c)

If choice c is selected set score to 1.

12. What is an advantage of a FET compared to bipolar transistor?

- o (a) The input impedance of a FET is lower.
- o (b) The gain of a FET is higher.
- (c) The input impedance of a FET is higher.

If choice c is selected set score to 1.

13. What is a basic characteristic of an ideal operational amplifier?

- o (a) The input impedance is finite.
- o (b) The input impedance is zero.
- (c) The input impedance is infinite.

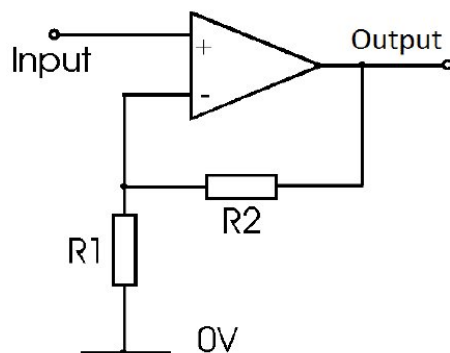
If choice c is selected set score to 1.

14. What is a disadvantage of an electronic switch compared to a mechanical switch?

- (a) The switch resistance when closed is never zero.
- o (b) The reliability is lower.
- o (c) The life span is shorter.

If choice a is selected set score to 1.

15. What will happen with a signal supplied to the input of this amplifier?



- o (a) The signal will appear inverted at the output.

- (b) The signal will appear not inverted at the output.
- o (c) The signal will either appear inverted or not inverted at the output.

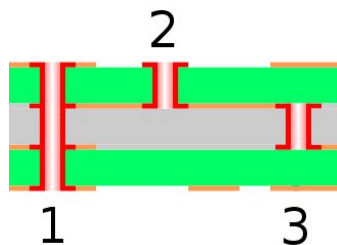
If choice b is selected set score to 1.

16. Flexible PCB are made out of

- (a) Kapton.
- o (b) Pertinax.
- o (c) PTFE (Poly-Tetra-Fluor-Ethylene).

If choice a is selected set score to 1.

17. How is the connection number 1 named?



- (a) Via.
- o (b) Buried via.
- o (c) Blind via.

If choice a is selected set score to 1.

18. What is a closed loop servo system?

- o (a) This is a servo system with a positive feedback.
- (b) This is a servo system with a negative feedback.
- o (c) This is a servo system with a differential feedback.

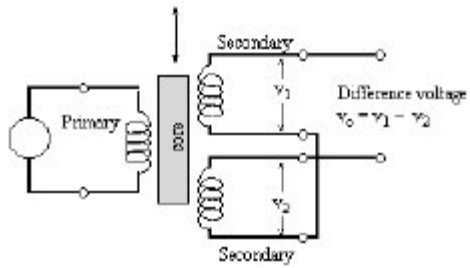
If choice b is selected set score to 1.

19. What is meant with an "error signal"?

- o (a) This is the difference between the "actual value" and the position of the output servo.
- (b) This is the difference between the "wanted value" and the "actual value".
- o (c) This is the difference between the "wanted value" and the position of the input servo.

If choice b is selected set score to 1.

20. This the schematic picture of a:



- (a) LVDT.
- o (b) Differential synchro.
- o (c) RVDT.

If choice a is selected set score to 1.

***If assessment score is 75% to 100% Pass
If assessment score is 0% to 74% Fail***