

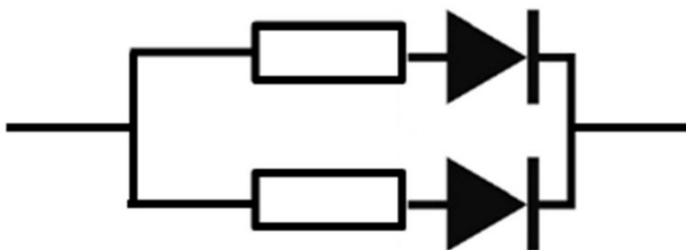
Question block created by wizard

This exam contains 20 questions.

1. What kind of diode symbol is shown here?



- a. This is the symbol of a varicap diode.
 - b. This is the symbol of a tunnel diode.
 - c. This is the symbol of a zener diode.
2. When is a diode conducting?
- a. When the anode is positive with respect to the cathode.
 - b. When the anode is negative with respect to the cathode.
 - c. When the cathode is positive with respect to the anode.
3. How can a regulated power supply of 4.9 Volt be constructed with standard Si-diodes?
- a. This can be done by connecting diodes in parallel. A total of 7 diodes is necessary.
 - b. It is not possible to obtain a regulated power supply this way.
 - c. This can be done by connecting diodes in series. A total of 7 diodes is necessary.
4. See figure. This circuit is used if...

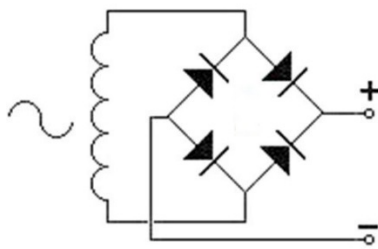


- a. a regulated power supply is required.
 - b. the current of the circuit proves to be too high for one diode.
 - c. the breakdown voltage of one diode proves to be too low for one diode.
5. What is a requirement to turn a thyristor on?
- a. The voltage between Anode and Cathode must be low.
 - b. The gate current must be zero.
 - c. A sufficient conducting current must flow.

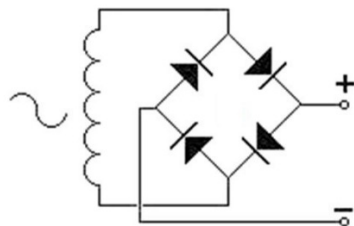
6. In which mode is a photodiode operated?

- a. Photovoltaic or photoconductive mode.
- b. Photovoltaic mode.
- c. Photoconductive mode.

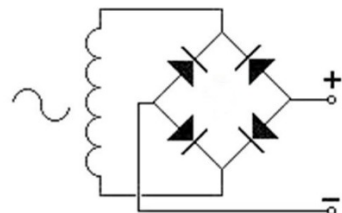
7. See pictures. Which picture depicts the correct Graetz rectifier?



a.



b.



c.

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

- a. The diode is shorted and defective.
- b. The diode is open and defective.
- c. The diode is good.

9. See picture. This is the symbol of a



- a. NPN transistor.
- b. PNP transistor.
- c. N-channel FET.

10. See figure. What are the names of the leads of this transistor.



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

11. For which kind of application is the common base amplifier very useful?

- a. Inverting the input signal.
- b. Impedance matching.
- c. RF amplification.

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

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

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

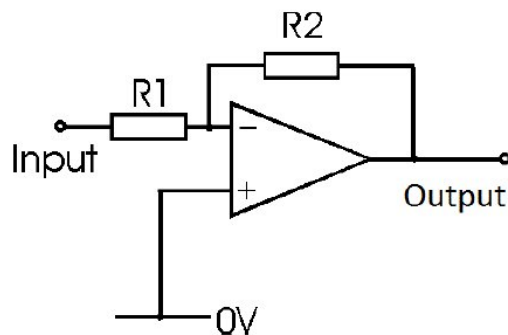
- a. The input impedance is finite.
- b. The input impedance is infinite.
- c. The input impedance is zero.

14. From what type of gate is the truth-table shown here?

A	B	Output
0	0	0
0	1	1
1	0	1
1	1	1

- a. This is an AND-gate.
- b. This is a NOR-gate.
- c. This is an OR gate.

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



- a. The signal will appear attenuated at the output.
- b. The signal will appear inverted at the output.
- c. The signal will appear not inverted at the output.

16. What does the abbreviation SMD mean?

- a. Surface Mounted Device.
- b. Simple Manipulated Device.
- c. Simple Mixed Devices.

