**SCR**

This set of Power Electronics Multiple Choice Questions & Answers (MCQs) focuses on “Thyristors-1”.

1. A thyristor (SCR) is a

a) P-N-P device

b) N-P-N device

c) P-N-P-N device

d) P-N device

C)

2. Which terminal does not belong to the SCR?

a) Anode

b) Gate

c) Base

d) Cathode

C)

3. An SCR is a

a) four layer, four junction device

b) four layer, three junction device

c) four layer, two junction device

d) three layer, single junction device

B)

4. Choose the false statement.

a) SCR is a bidirectional device

b) SCR is a controlled device

c) In SCR the gate is the controlling terminal

d) SCR are used for high-power applications

A)

5. In the SCR structure the gate terminal is located

a) near the anode terminal

b) near the cathode terminal

c) in between the anode & cathode terminal

d) none of the mentioned

B)

6. The static V-I curve for the SCR is plotted for

a) Ia (anode current) vs Ig (gate current), Va (anode – cathode voltage) as a parameter

b) Ia vs Va with Ig as a parameter

c) Va vs Ig with Ia as a parameter

d) Ig vs Vg with Ia as a parameter

B)

7. If the cathode of an SCR is made positive with respect to the anode & no gate current is applied then

a) all the junctions are reversed biased

b) all the junctions are forward biased

c) only the middle junction is forward biased

d) only the middle junction is reversed biased

C)

8. For an SCR in the reverse blocking mode, (practically)

a) leakage current does not flow

b) leakage current flows from anode to cathode

c) leakage current flows from cathode to anode

d) leakage current flows from gate to anode

C)

9. With the anode positive with respect to the cathode & the gate circuit open, the SCR is said to be in the

a) reverse blocking mode

b) reverse conduction mode

c) forward blocking mode

d) forward conduction mode

C)

10. For an SCR in the forward blocking mode (practically)

a) leakage current does not flow

b) leakage current flows from anode to cathode

c) leakage current flows from cathode to anode

d) leakage current flows from gate to anode

B)

**DIAC**

1. The normal way to turn on a diac is by

A.Gate current

B.Breakover voltage

C.Either of the above

D. None of the above

B)

1. A diac is equivalent to a

A.Triac with two gates

B.Diode and two resistors

C. [Pair](http://www.mechanicaltutorial.com/) of SCRs

D.Pair of four-layer SCRs

D)

1. A diac is ....... switch

1. An A.C
2. D.C
3. Either of the above
4. None of the above

A)

4. A DIAC has \_\_\_\_\_\_\_\_ terminals

1. Two
2. Three
3. Four
4. None of the above

A)

5. A DIAC has \_\_\_\_\_\_\_ p-n junctions

1. Four
2. Two
3. Three
4. None of the above

B)

6. A DIAC has \_\_\_\_\_\_\_\_ semiconductor layers

1. Three
2. Two
3. Four
4. None of the above

A)

7. A DIAC is simply

1. A single junction device
2. A three junction device
3. A TRIAC without gate terminal
4. None of the above

C)

8.

9.

10.

**TRIAC**

1. A TRIAC has three terminals viz...

A. Drain, Source, Gate

B. Two main terminal and a gate terminal

C. Cathode, Anode, Gate

D. None of the above

B)

1. A TRIAC is equivalent to two SCRs...

A. In parallel

B. In series

C. In inverse-parallel

D. None of the above

C)

1. A TRIAC is a \_\_\_\_\_\_\_\_ switch

A. Bidirectional

B. Unidirectional

C. Mechanical

D. None of the above

A)

1. The V-I characteristics for TRIAC in the first and third quadrants are essentially identical to those of \_\_\_\_\_\_\_\_ in its first quadrant

A. Transistor

B. SCR

C. UJT

D. None of the above

B)

1. A TRIAC can pass a portion of \_\_\_\_\_\_\_\_\_ half cycles through the load

A. Only positive

B. Only negative

C. Both positive and negative

D. None of the above

C)

1. The TRIAC is...

A. Like a bidirectional SCR

B. A 4-terminal device

C. Not a thyristor

D. A. and B.

A.