Power Electronics MCQ Questions and Answers Pdf

Question: 1

Germanium is not used in the fabrication of thyristors because

- (A) it is much costlier than silicon
- (B) it has much lower thermal conductivity than silicon
- (C) its breakdown voltage is much larger than that of silicon

(D) both a and b

View Answer

Ans: D

both a and b

Question: 2

The turn off time is longer than the turn on time in SCR because

(A) the forward break over voltage is high

(B) the gate pulse has been removed

(C) the anode and cathode junctions get reverse biased while gate junction is still forward biased

(D) none of the above

View Answer

Ans: C

the anode and cathode junctions get reverse biased while gate junction is still forward biased

Question: 3

Practical way of obtaining static voltage equalization in series connected SCRs is by the use of

(A) one resistor across the string

(B) resistors of the same value across each SCR

(C) resistors of different values across each SCR

(D) one resistor in series with each SCR

View Answer

Ans: B

resistors of the same value across each SCR

Question: 4

The nature of load current, i.e., whether load is continuous or discontinuous is controlled rectifiers

- (A) does not depend on type of load and firing angle delay
- (B) depends only on the firing angle delay
- (C) depends only on the type of load
- (D) depends both on the type of load an firing angle delay

View Answer

Ans: D

depends both on the type of load an firing angle delay

Question: 5

The duration of reverse recovery transient affects which of the following aspect in a power diode?

(A) speed of response

(B) peak inverse voltage

(C) average current

(D) forward threshold voltage

View Answer

Ans: B

peak inverse voltage

Question: 6

An inter-group reactor is used in a single phase cycloconverter circuit to

- (A) limit circulating current
- (B) limit di/dt in the semiconductor switch
- (C) reduce voltage ripples
- (D) reduce current ripples

View Answer

Ans: A

limit circulating current

Question: 7

Which of the following converters can feed power in any of the four quantities?

- (A) combination of a semi and full converter
- (B) semi-conductor
- (C) dual converter
- (D) full converter

View Answer

Ans: C

dual converter

Question: 8

In cycloconverter speed control of an induction motor, cycloconverter frequency

(A) is always less and about one third of supply frequency

(B) can be higher or lower than supply frequency

- (C) is higher than the supply frequency
- (D) is equal to that of supply frequency

View Answer

Ans: A

is always less and about one third of supply frequency

Question: 9

A single phase IGBT bridge inverter, compared to a single pulse PWM control, multiple pulse PWM

- (A) gives lower harmonic content in the output voltage
- (B) requires more number of switching devices
- (C) gives higher maximum ems output voltage
- (D) gives higher harmonic content in output voltage

View Answer

Ans: D

gives higher harmonic content in output voltage

Question: 10

- Anode current in an SCR consists of
- (A) holes only
- (B) electrons only
- (C) both electron and holes
- (D) either electron or holes

Ans: A

holes only

meritnotes.com