

No. of Printed Pages : 4
Roll No.

181043/171043

**4th Sem / Eltx.
Subject:- Power Electronics**

Time : 3Hrs.

M.M. : 100

SECTION-A

Note: Multiple choice questions. All questions are compulsory
(10x1=10)

Q.1 An DIAC has _____ terminals

- a) 2
- b) 3
- c) 4
- d) 5

Q.2 An SCR is a _____ junction device

- a) 2
- b) 3
- c) 4
- d) 5

Q.3 ADIAC is used to _____ TRIAC

- a) OFF
- b) Trigger
- c) None
- d) Both

Q.4 Full form of UJT is _____

- a) Unijunction transistor
- b) Unipolar transistor
- c) None
- d) Both

Q.5 Cycloconverter is device which converts _____ of one frequency to _____ of another frequency

- a) DC, AC
- b) AC, DC
- c) AC, AC
- d) DC, DC

Q.6 DIAC is a _____ device.

- a) Bidirectional
- b) Unidirectional
- c) Both
- d) None

Q.7 SCR is a bidirectional device (True/False)

Q.8 Inverter converts _____ to _____

- a) DC, AC
- b) AC, DC
- c) AC, AC
- d) DC, DC

Q.9 A dual converter has _____ quadrant operations without any change over switch

- a) 4
- b) 3
- c) 2
- d) None

Q.10 Chopper is a device which converts fixed _____ into variable _____

- a) DC, AC
- b) AC, DC
- c) DC, DC
- d) AC, AC

SECTION-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

- Q.11 What is Chopper?
- Q.12 What is Dual converter?
- Q.13 What is Cycloconverter?
- Q.14 Define duty cycle of chopper.
- Q.15 What is Relaxation Oscillator?
- Q.16 Full form of SCR.
- Q.17 Draw symbol of TRIAC.
- Q.18 Expand the term DIAC.
- Q.19 Draw symbol of UJT.
- Q.20 What is inverter?

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 List applications of UJT.
- Q.22 What are different methods of triggering of an SCR
- Q.23 Explain UJT as a relaxation oscillator
- Q.24 What do you mean by heat sink

- Q.25 What is difference between uncontrolled and controlled rectifier
- Q.26 What do you mean by single phase full wave controlled rectifier
- Q.27 What do you mean by inverter
- Q.28 List applications of Dualconverter
- Q.29 Define dual converter
- Q.30 Define chopper
- Q.31 Explain the term cycloconverter and give its applications
- Q.32 What is AC drive and give its purpose
- Q.33 What is DC drive and What are the types of dc drive control
- Q.34 Compare AC and DC drive
- Q.35 What do you mean by UPS and give its types

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

- Q.36 Draw the V-I characteristics of SCR and explain its working
- Q.37 Write short note on dual converter and cycloconverter
- Q.38 Write a short note on DC drive control.