

V.P & R.P.T.P SCIENCE COLLEGE
V.V.NAGAR

Internal test

Subject-Power electronics

Date: 10/03/2014

Course: Instrumentation (V)

Time: 1:00 to 2:30pm

Subject code: US04CINV01

Total Marks: 30



Q-1 Short answer type questions. (attempt any three) [6]

- (1) Define string efficiency.
- (2) Which factor contributes to internal losses of thyristor?
- (3) Why RC snubber circuit is used in phase control using TRIAC?
- (4) Draw symbol of SCR and DIAC.
- (5) Can we use SCR in inverter? Justify it.
- (6) Write cycloconverter application.

Q-2(a) Explain principle of operation of an SCR with its characteristics. [4]

(b) Discuss TURN-OFF mechanism with its characteristics. [4]

OR

Q-2 Explain series operation of an SCR in detail. [8]

Q-3 Explain constructional mechanism and characteristics of UJT and also explain operation of UJT as relaxation oscillator. [8]

OR

Q-3 Explain constructional detail of TRIAC and also write its triggering mode with necessary figure. [8]

Q-4 Explain: - 1. Over voltage protection [4]
2. Zero voltage switch [4]

OR

Q-4 Write a note on logic and digital circuit for thyristor. [8]

*** ALL THE BEST ***