

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

Internal test

Subject-Electrical instruments and Power electronics-II

Date: 13/03/2015

Course: Instrumentation (V)

Time: 10:30 to 12:00pm

Subject code: US04CINV01

Total Marks: 25

**Q-1 Choose correct answer from given:** [3]

- (1) An SCR is \_\_\_\_\_ layer device with three terminals.  
(A) two (C) four  
(B) three (D) none of above
- (2) A TRIAC is a \_\_\_\_\_ device with three terminals.  
(A) Bi-lateral (C) both (A) and (B)  
(B) positive and negative (D) uni-lateral
- (3) An SCR are connected in series to improve the \_\_\_\_\_ rating.  
(A) current (C) power  
(B) voltage (D) none of above



**Q-2 Short answer type questions. ( attempt any two)** [4]

1. Briefly explain string efficiency.
2. Differentiate DIAC and TRIAC.
3. What is cycloconvertor? And list its application.

**Q-3 Explain constructional and principle operation of an SCR with its characteristics.** [6]

OR

**Q-3 Discuss series operation of an SCR with necessary diagram.** [6]

**Q-4 Discuss constructional mechanism and characteristics of an UJT.** [6]

OR

**Q-4 Explain constructional mechanism and Triggering mode of TRIAC.** [6]

**Q-5 Explain application of an SCR 'Zero voltage switch'.** [6]

OR

**Q-5 Discuss application of an SCR Static circuit breaker.** [6]

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