VITHALBHAI PATEL & RAJRATNA P.T. PATEL SCIENCE COLLEGE
VALLABH VIDHYA NAGAR

T.Y. B.Sc. SEM: IV **INTERNAL TEST** **DATE: 05th Oct. 2013**
SUB: ELECTRONICS **TIME: 3:30 pm to 5:00 pm**
SUB CODE: US05CELE05 **TOTAL MARKS: 30**

Q. 1 Choose the correct answer. **[06]**

(1) SCR is ____ type device.
- **(A)** Uni directional
- **(B)** Bi directional
- **(C)** Multi directional
- **(D)** None of above

(2) Thyrister device mainly used for _____ .
- **(A)** Rectification
- **(B)** Amplification
- **(C)** Power controlling
- **(D)** None of above

(3) UJT mainly used for ___ .
- **(A)** Amplifier
- **(B)** Relaxation oscillator
- **(C)** Power controlling
- **(D)** None of above

(4) V_{Bo} in SCR refer as ___ .
- **(A)** Break down voltage
- **(B)** Over voltage
- **(C)** Break over voltage
- **(D)** None of above

(5) _____ Connection of SCR used for controlling very high voltage.
- **(A)** Series
- **(B)** Bi directional
- **(C)** Parallel
- **(D)** None of above

(6) Recommended method to TURN ON SCR is ____ .
- **(A)** Triggering by D.C. signal
- **(B)** Both **(A)** & **(B)**
- **(C)** Triggering by A.C. signal
- **(D)** None of above

Q.2 Answer the following in short.(Attempt Three, each two marks) **[06]**

(1) State function of gate in SCR.
(2) Define holding current i_H.
(3) Define reveres recovery current i_{RR}.
(4) Define string efficiency.
(5) State any three important applications of thyristor device.
(6) Differentiate between semiconductor and thyristor device.

Q.3 Discuss principle of operation and characteristics of SCR. **[06]**

OR

Q.3 Discuss different method of turning on a SCR with TURN ON characteristics. **[06]**

Q.4 Describe series operation of SCR giving necessary diagram. **[06]**

OR

Q.4 Discuss parallel operation of SCR giving necessary diagram. **[06]**

Q.5 With help of circuit diagram describe TURN OFF mechanism of SCR. **[06]**

OR

Q. 5 Discuss characteristics and operation of UJT giving necessary diagram. **[06]**

– – – –

- : All the best: -