

## SECTION-C

**Note:** Long answer type questions. Attempt any three questions. 3x10=30

- Q.3 With the help of neat diagram explain single phase half wave controlled rectifier with R-L load.
- Q.4 Explain the construction and working of SCR also explain its VI characteristic in detail.
- Q.5 Draw and explain the working of UPS also write difference between on line and off line UPS.
- Q.6 What is a cyclo converter explain its types with the help on neat wave forms.
- Q.7 Write short notes on any two
- a) Full wave drive.
  - b) Bridge controlled full wave rectifier.
  - c) Criteria for selecting battery for UPS.

No. of Printed Pages : 4

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## 5th Sem. / Instrumentation & Control Electronics & Instt.

### Subject : Power Electronics

Time : 3 Hrs.

M.M. : 100

## SECTION-A

**Note:** Very Short Answer type questions. Attempt any 15 parts. (15x2=30)

- Q.1
- a) Triggering.
  - b) SCR symbol.
  - c) Latching current.
  - d) Holding current.
  - e) Duty cycle.
  - f) Commutation.
  - g) Snubber circuit.
  - h) UPS.

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- i) Relaxation oscillator.
- j) HVDC.
- k) Dual converter.
- l) Cyclo converter.
- m) Symbol of DIAC.
- n) Heat sink.
- o) Expand LASCR.
- p) UJT.
- q) SMPS.
- r) Inverter.
- iii) Explain the factors that are consider for selection material of heat sink.
- iv) Explain the class C communication.
- v) Differentiate between natural ad forced communication.
- vi) Explain the MOSFET.
- vii) Write about Gate triggering.
- viii) Explain chopper and its types.
- ix) Explain working of dualconnector.
- x) Explain different methods of triggering.
- xi) What is variable frequency drive.
- xii) Explain working of series in verter.
- xiii) Explain step up cyclo connector.
- xiv) What is HVDV explain unipolar HVDC.
- xv) Explain the function of UPS.

### SECTION-B

**Note:** Short answer type questions. Attempt any ten parts  
10x4=40

- Q.2 i) Explain the construction of DIAC.
- ii) Explain two transistor analogy of SCR.

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