

- Q.25 Write short note on Parallel inverters.
 Q.26 Describe applications of cycloconverter.
 Q.27 Differentiate between square wave invertors & sine wave inverters.
 Q.28 Write a short note on electric drives.
 Q.29 Explain cycloconverter.
 Q.30 Differentiate between on-line & off line UPS.
 Q.31 Write a short note on SMPS.
 Q.32 Describe classification of inverter.
 Q.33 Explain two transistor analogy of SCR.
 Q.34 Discuss Battery charger circuit using Thyristor.
 Q.35 Write a short note on GTO.

SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)
- Q.36 Explain construction & working principle of SCR with its characteristics.
 Q.37 Discuss single phase half wave controlled rectifier with R.L. Load.
 Q.38 Explain cycloconverter & their applications.

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SECTION-A

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

- Q.1 TRIAC can be used as _____.
 a) Unidirectional switch
 b) Bi-Directional switch
 c) Not used as switch
 d) Both A & B
- Q.2 ADIAC is used to _____.
 a) Commute a Triac b) To protect a Triac
 c) Trigger a Triac d) None of these
- Q.3 A single phase full wave Fully controlled bridge rectifier used how many SCRs.
 a) 4 SCRs b) 6 SCRs
 c) 2 SCRs d) 1 SCRs
- Q.4 An inverter converts _____.
 a) DC into variable DC b) AC into DC
 c) DC into AC d) None of these

Q.5 In UPS, filter is used to eliminate _____.

- a) Higher order harmonics
- b) Lower order harmonics
- c) Both (a) & (b)
- d) None of these

Q.6 Induction motor drives are example of _____.

- a) DC Drives b) A.C. Drives
- c) Chopper d) None of these

Q.7 SCR can be triggered by _____.

- a) Forward voltage Triggering
- b) Gate Triggering
- c) Both (a) & (b)
- d) None of these

Q.8 SCRs are connected in series in order to full fill the requirement of _____.

- a) High current demand
- b) High voltage demand
- c) High power demand
- d) None of these

Q.9 Heat sinks are made up of _____.

- a) Aluminum b) Copper
- c) Zink d) Both (a) & (b)

Q.10 UJT is widely used as _____.

- a) Oscillator b) Pulse ckt.
- c) Both of these d) None of these

SECTION-B

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

Q.11 Expand MOSFET.

Q.12 String efficiency is always less than 1. T/F.

Q.13 A SCR contains _____ layers.

Q.14 Expand F.W.D.

Q.15 Uncontrolled rectifier contains only diodes. T/F.

Q.16 Half controlled rectifier operates in 1st quadrant . T/F

Q.17 Step - up Chopper Require forced commutation. T/F

Q.18 A switching mode power supply is a multistage supply. T/F

Q.19 In on-line UPS the invertor is _____ all the time.

Q.20 F.W.D. in controlled Rectifiers, improves load current of rectifier. T/F.

SECTION-C

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

Q.21 Describe Different methods of Triggering for SCR.

Q.22 Explain construction & working principle of UJT.

Q.23 Describe SCR specifications.

Q.24 Draw & explain single phase fully controlled full wave centre tape rectifier.