

- 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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Time : 3Hrs.

M.M. : 100

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) Commutate 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 inventor 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 inventor 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.