

No. of Printed Pages : 4
Roll No.

220953

5th Sem./ Electrical, IC
Subject : Industrial Electronics & Control of Drives

Time : 3 Hrs.

M.M. : 60

SECTION-A

Note: Multiple Choice Questions. All Questions are compulsory. (6x1=6)

- Q.1 An SCR is a _____ switch. (CO1)
a) Unidirectional b) Three directional
c) Bidirectional d) Four directional
- Q.2 A UJT is a _____ terminal device (CO1)
a) Two b) Four
c) Three d) Five
- Q.3 A chopper circuit converts _____. (CO3)
a) DC to DC b) AC to DC
c) DC to AC d) AC to AC
- Q.4 A three phase full wave half controller bridge uses. (CO2)
a) 2 SCRs b) 3 SCRs
c) 4 SCRs d) 6 SCRs

- Q.5 Field control method is used in DC motors to get. (CO4)
a) Speed above normal speed
b) Speed below normal speed
c) Both Option A & B
d) None of the above

- Q.6 SMPS is used for (CO5)
a) Obtaining controlled AC power supply
b) Obtaining controlled DC power supply
c) Storage of DC power
d) None of the above

SECTION-B

Note: Objective/Completion type questions. All questions are compulsory. (6x1=6)

- Q.7 A DIAC is used as triggering agent for TRIAC True/False (CO1)
- Q.8 Define inverter. (CO3)
- Q.9 Class B chopper operates in _____ quadrant. (CO4)
- Q.10 Expand UPS. (CO5)

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- Q.11 The value of latching current is more than the holding current. (True/False) (CO1)
- Q.12 List two applications of Controlled Rectifier. (CO2)

SECTION-C

Note: Short answer type Question. Attempt any eight questions out of Ten Questions. (8x4=32)

- Q.13 Draw Symbol and V-I characteristics of TRIAC. (CO1)
- Q.14 Define triggering and explain any two methods of triggers of an SCR. (CO1)
- Q.15 Explain working of Dual converter. (CO3)
- Q.16 Explain one-line UPS with circuit diagram. (CO5)
- Q.17 Define cycloconverter. Write its applications. (CO3)
- Q.18 List four advantages of Electric Drive. (CO4)
- Q.19 Explain single phase Half controlled full wave Rectifier. (CO2)
- Q.20 Explain the working of SCR. (CO1)
- Q.21 List four advantages of AC drive over DC drive. (CO4)
- Q.22 Write short note on SMPS. (CO5)

SECTION-D

Note: Long answer questions. Attempt any two question out of three Questions. (2x8=16)

- Q.23 Draw V-I characteristics of UJT and explain UJT as a Relaxation oscillator _____. (CO1)
- Q.24 Define chopper. What are different types of chopper? Explain any one in detail. (CO3)
- Q25 Write a short note on any two:
- a) Concept of electric drive (CO1)
 - b) Offline UPS (CO5)
 - c) Classification of thyristers (CO1)