

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)

220953

220953

- 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 TRAIC. (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)