

SECTION-D

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

- Q.23 Explain with the help of suitable diagram, Light intensity control using thyristors. (CO1)
- Q.24 Explain the basic principle of Dual converter. What are its applications? (CO3)
- Q.25 Explain with the help of circuit diagram of Cycloconverter controlled a.c. drive. (CO4)

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Roll No.

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**4th Sem./ ECE, ECE
(For Speech and Hearing Impaired)
Subject : Power Electronics**

Time : 3 Hrs.

M.M. : 60

SECTION-A

Note: Multiple choice questions. All questions are compulsory (6x1=6)

- Q.1 A single-phase full wave Centre tap rectifier uses (CO2)
- a) 1 SCR
 - b) 2 SCR
 - c) 3 SCR
 - d) 4 SCR
- Q.2 In power Electronics, UJT stands for (CO1)
- a) Uni-junction transistor
 - b) Uni-junction transmitter
 - c) Both A&B
 - d) None of these
- Q.3 Class A chopper operates in (CO3)
- a) First quadrant
 - b) Second quadrant
 - c) Third quadrant
 - d) Fourth quadrant

Q.4 Cycloconverter drives are generally employed in
(CO4)

- a) traction
- b) milling
- c) generating low frequencies
- d) generating pulses

Q.5 UPS stands for
(CO5)

- a) Uninterruptible personal supply
- b) Uninterruptible power supply
- c) Universal personal supply
- d) Universal power supply

Q.6 DIAC has _____ terminals.
(CO1)
a) 2 b) 3
c) 4 d) 5

SECTION-B

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

Q.7 SCR is universal device.(True/False) (CO1)

Q.8 Fully controlled rectifier contains mixture of diodes and SCR. (True/False) (CO2)

Q.9 A chopper converts fixed DC voltage to a variable DC output voltage .(True/False) (CO3)

Q.10 Chopper drive can be used for controlling the speed of DC drives.(True/False) (CO4)

Q.11 Online UPS is _____ (Cheaper/costlier) than offline UPS. (CO5)

Q.12 UPS is commonly used in street lighting.
(True/False) (CO5)

SECTION-C

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

Q.13 Draw V-I characteristics of SCR. (CO1)

Q.14 Write basic idea about the selection of heat sink for thyristors (CO1).

Q.15 Explain , UJT as relaxation oscillator. (CO1)

Q.16 Explain working of single phase half wave controlled rectifier with RL load. (CO2)

Q.17 Explain working principle of inverter. (CO3)

Q.18 Define Chopper. Name its types. (CO3)

Q.19 Write a short note on “Cycloconverter”. (CO3)

Q.20 What are main advantages of AC drives over DC drives? (CO4)

Q.21 Define Battery. What are different types of batteries? (CO5)

Q.22 What do you understand by UPS? What are basic parts of UPS? (CO5)