

S. B. Roll. No.....

INDUSTRIAL ELECTRONICS & CONTROL OF DRIVES
4th Exam/Elect/4525/Nov'24
(For 2018 Batch Onwards)

Duration: 3Hrs.

M.Marks:75

SECTION-A

Q1. Give answer in one line.

15x1=15

- a. Define cyclo-converter.
- b. What is UPS?
- c. Write down the application of SCR.
- d. Draw the symbol of DIAC.
- e. What is commutation?
- f. Name the different types of choppers.
- g. Define firing angle.
- h. What is regulated power supply?
- i. Define holding current.
- j. What is latching current?
- k. What is line regulation?
- l. Write down the application of DC motor.
- m. Define converter.
- n. What is advantage of SMPS?
- o. What is disadvantage of TRIAC?

SECTION-B

Q2. Attempt any six questions.

6x5=30

- i. What do you mean by choppers? List their types.
- ii. What is rectifier? List their types and applications of rectifier.
- iii. Differentiate between SCR and TRIAC.
- iv. What do you mean by inverter? List their types.
- v. List the advantages of SMPS.
- vi. Explain the working principle of UJT.
- vii. What is natural or line commutation?
- viii. Explain with the help of circuit diagram, the working principle of a single phase full wave fully controlled bridge rectifier.

SECTION-C

Q3. Attempt any three questions.

3x10=30

- a. What is an SCR? Draw and explain the working principle of SCR.?
- b. What do you mean by class D chopper? Explain
- c. Draw the V-I characteristics of TRIAC and explain its working.
- d. Explain the following (any two):-
i) Dual converters. ii) Offline UPS iii) Online UPS

P.S.B.T.E.&I.T.