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Question Paper Code: 35503

B.E. / B.Tech. DEGREE EXAMINATION, AUGUST 2021

Fifth Semester

Electronics and Instrumentation Engineering

01UEI503 – INDUSTRIAL ELECTRONICS

(Regulation 2013)

Duration: 1:45 hour

Maximum: 50 Marks

PART A - (10 x 2 = 20 Marks)

(Answer any ten of the following questions)

1. Draw the symbol of N-channel E-MOSFET and P-Channel E- MOSFET.
2. Draw the two transistor model of SCR.
3. Define Phase Control.
4. List the advantages of dual converter?
5. Define duty cycle.
6. Classify the inverter circuit based on commutation circuitry.
7. Mention some of the applications of electrical drives.
8. Write the expression for average output voltage of full converter fed DC drives.
9. What is a digital timer?
10. Define line regulation and load regulation in voltage regulators.
11. List the various configurations of choppers.
12. Mention some of the applications of electrical drives.
13. Recall dynamic braking.

14. What is a digital timer?
15. Define voltage regulation.

PART – B (3 x 10= 30 Marks)

(Answer any three of the following questions)

16. Describe about the characteristics of power devices in detail.
(i) SCR (ii) IGBT (10)
17. Analyze the three phase fully controlled converter with necessary circuit diagram and waveforms. (10)
18. Discuss the series and parallel inverter in detail. (10)
19. Illustrate regenerative and dynamic braking of DC motor. (10)
20. Discuss the operation of UPS with neat block diagram. (10)