

(ELE N – 5303A1)
B.SC Degree (CBCS) Examinations-
SEMESTER-V (REGULAR)
INDUSTRIAL ELECTRONICS

3 MAR 2023

TIME: 3 Hrs

Max Marks:60

Part – A (5 x 4 M = 20 Marks)

Answer any Five of the following:

1. Mention applications of CRO.
2. Explain about electron gun assembly.
3. Draw and explain the block diagram of SMPS.
4. The four diodes used in a bridge rectifier circuit have a forward resistances which may be considered constant at 10Ω . The alternating supply voltage is 240 V r.m.s and load resistance is 560Ω . Calculate I_m , I_{dc} and efficiency.
5. Explain voltage multipliers.
6. Mention the differences between half wave and full wave voltage multipliers
7. Explain the working of SCR series inverter.
8. Explain the principle of SCR parallel inverter.
9. Difference between induction heating and resistance heating.
10. Mention the applications and advantages of Dielectric heating.

Part – B (5 x 8 M = 40 Marks)

Answer the following:

11. With the help of neat circuit diagram explain construction and working of CRT. Give their applications.
(OR)
12. What is CRO? Mention and explain the different types of CRO. Mention their uses.
13. Discuss in detail about the working of bridge rectifier with neat circuit diagram and draw its waveforms.
(OR)
14. Draw and explain the block diagram of swith mode power supply and explain its working.
15. Explain about construction and working of full wave voltage doubler with neat circuit diagram.
(OR)
16. Explain in detail about construction and working of voltage tripler with help of its related diagram.

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17. With the help of neat diagram explain the working of SCR full wave rectifier and draw its wave forms.

(OR)

18. Explain the mathematical analysis of SCR half wave rectifier with resistive load.

19. Explain in detail about working of indirect resistance heating and mention its applications.

(OR)

20. Explain the working of Dielectric heating with its related diagram.

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