

1903000203020093 / 1911000303020093
EXAMINATION FEBRUARY-MARCH 2024
BACHELOR OF SCIENCE (THIRD SEMESTER)
ELECTRONICS PAPER – V
LINER POWER ELECTRONICS

[Time: As Per Schedule]

[Max. Marks: 50]

Instructions:

1. Fill up strictly the following details on your answer book

- a. Name of the Examination : **BACHELOR OF SCIENCE (ELECTRONICS) (THIRD SEMESTER)**
 - b. Name of the Subject : **ELECTRONICS PAPER – V LINER POWER ELECTRONICS**
 - c. Subject Code No : **1903000203020093 / 1911000303020093**
2. Sketch neat and labelled diagram wherever necessary.
 3. Figures to the right indicate full marks of the question.
 4. All questions are compulsory.
 5. Q. 1 is compulsory.
 6. Assume data, if required.

Seat No:

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Student's Signature

Q.1 Answer in brief:

14

- A. Define the term regulated power supply.
- B. Give the limitations of zener diode shunt regulator.
- C. State the disadvantages of bridge wave rectifier.
- D. Give the full form of RMS & UPS.
- E. Define the term filter.
- F. Draw the characteristics of a zener diode.
- G. Draw the block diagram of a regulated power supply.

Q.2

- A. Describe the construction & working of a Zener Shunt Regulator with the help of its schematic.
- B. Discuss the remedies to remove the disadvantages of Zener Shunt Regulator.

8

4

OR

- A. Describe the construction & working of the centre tap FWR and discuss its disadvantages. **8**
- B. Which filter is better to remove ripples and why? **4**

- Q.3**
- A. Describe the construction & working of a HWR with C filter. **8**
 - B. Differentiate between HWR & FWR. **4**

OR

- A. Briefly describe the working of a emitter follower transistor regulator. **8**
- B. Explain the working of an adjustable 3 terminal regulator. **4**

- Q.4 Write short notes on: (ANY TWO) **12****

- A. π filters
- B. Various battery charging methods
- C. Series pass regulators
- D. Rechargeable cells
