

1903000203020093
EXAMINATION DECEMBER 2024
BACHELOR OF SCIENCE (NON-NEP) (THIRD SEMESTER)
ELECTRONICS PAPER – V
LINEAR 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 (NON-NEP) (THIRD SEMESTER)**
 - b. Name of the Subject: **ELECTRONICS PAPER – V LINEAR POWER ELECTRONICS**
 - c. Subject Code No: **1903000203020093**
2. Draw figures/diagrams to support your answer.
 3. Figures at extreme right indicate full marks.
 4. Q. 1 is compulsory.
 5. Assume data, if required.

Seat No:

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Student's Signature

Q.1 Answer in brief: 14

- A) What is the need for regulation?
- B) Define the term rectification and ripples.
- C) Draw the output waveforms of HWR & FWR.
- D) Draw a labelled diagram of IC LM 7905.
- E) State the ripple factor for HWR & Bridge rectifier.
- F) What are the outputs of 7812 and 7905 IC's.
- G) What do you mean by dual power supply?

Q.2 A) Describe the construction & working of the centre tap FWR and discuss its disadvantages. 8

B) Which filter is better for removing ripples and why? 4

OR

A) Discuss HWR and explain the working of C filter. 8

B) Differentiate between centre tap FWR and bridge type FWR. 4

Q.3 A) Briefly describe the working of an emitter follower transistor regulator. 6

B) Explain the working of an adjustable 3 terminal regulator. 6

OR

A) Discuss the working of the solar cell as a charging device. **6**

B) Differentiate between Ni-Cd cells and Lead Acid cells. **6**

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

A) II filters

B) Various battery charging methods

C) Series pass regulators

D) Rechargeable cells
