

2003000204020093
EXAMINATION OCTOBER 2024 (ATKT EXAM)
BACHELOR OF SCIENCE (FOURTH SEMESTER)
ELECTRONICS-V (SWITCHING POWER SUPPLY)

[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 (FOURTH SEMESTER)**
 - b. Name of the Subject: **ELECTRONICS-V (SWITCHING POWER SUPPLY)**
 - c. Subject Code No: **2003000204020093**
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. Assume data, if required.

Seat No:

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Student's Signature

Q.1 Write very short answers.

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1. Draw the circuit symbol of SCR.
2. Draw the characteristics of TRIAC.
3. What is a step-down converter?
4. What is the full form SMPS and SCR.

Q.2 A. What is a Thyristor? Discuss the TRIAC in detail.
B. Discuss the two-transistor analogy of an SCR.

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OR

- A. Explain the forward type of Converter. How is the selection of transistor made for this type of converter?
- B. Give the summary of regulatory action using PWM in SMPS.

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Q.3 A. Discuss the application of BJT as a switch.
B. Discuss Battery Chargers.

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OR

- A. Discuss the fly-back converter. 7
- B. Discuss the buck converter with the basic circuit of a converter. 7

Q.4 Write short notes (ANY TWO) 14

1. McMurray Bedford inverter
2. Comparison of Linear and Switching mode power supply
3. JFET as a switch
4. UPS
