



RAN - 2003000204020093

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S.Y.B.Sc. (Sem. IV) Examination April - 2023

Electronics (Paper V)

Switching Power Supply

[Total Marks: 50

सूचना : / Instructions

(१)

नीचे दृशविव निशानीवाणी विगतो उत्तरवली पर अवश्य लपववी.
Fill up strictly the details of signs on your answer book

Name of the Examination:

☛ **S.Y.B.Sc. (Sem. IV)**

Name of the Subject :

☛ **Electronics (Paper V) Switching Power Supply**

Subject Code No.: **2003000204020093**

Seat No.:

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Student's Signature

- (2) Q. 1 is compulsory.
- (3) Figures at extreme right indicate full marks.
- (4) Draw figures/diagrams to support your answer.
- (5) Assume data, if required.

Q.1 Write very short answers:

08

- A) What are Thyristors?
- B) Draw the circuit symbol for DIAC and TRIAC
- C) Draw a PWM waveform with 25% Duty cycle.
- D) Explain signal to noise ratio.

Q.2 A) Give the two transistor analogy for an SCR and discuss the working of the SCR.

07

B) Explain the construction, working and characteristics of TRIAC.

07

OR

Q.2 A) Classify inverters and explain bridge inverter in detail.

07

B) What is forward type converter? How is the selection of transformer made for this type of converter?

07

- Q.3** A) Discuss the Fly-back converter **07**
B) Discuss the buck converter with the basic circuit of a converter **07**

OR

- Q.3** A) IC SG 3524 block diagram **07**
B) Give the summary of regulatory action in SMPS **07**

Q.4 Write Short notes: (ANY TWO) 14

- A) McMurray Bedford inverter
B) Linear power supply vs SMPS
C) BJT Switch
D) Battery Chargers
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