



**AC-3063**  
**Second Year B. Sc. (Sem. IV) Examination**  
**April / May – 2015**  
**Electronics : Paper - V**  
*(Switching Power Supply)*

Time : Hours]

[Total Marks : 50

Instructions :

(1)

<p>नीचे दर्शायेव निशानीवाणी विगतो उत्तरवडी पर अवश्य कपवी. Fillup strictly the details of signs on your answer book.</p> <p>Name of the Examination : <b>SECOND YEAR B. SC. (SEM. IV)</b></p> <p>Name of the Subject : <b>ELECTRONICS : PAPER - V</b></p> <p>Subject Code No. : <b>3 0 6 3</b> Section No. (1, 2,.....): <b>Nil</b></p>	<p>Seat No. : <input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/></p> <div style="border: 1px solid black; border-radius: 15px; padding: 10px; text-align: center; margin-top: 10px;">Student's Signature</div>
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- (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.

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|---|--|---|
| 1 | Write very short answers :   | 8 |
|   | (A) Define Thyristor.  |   |
|   | (B) What is a chopper?   |   |
|   | (C) Enlist the applications of UPS   |   |
|   | (D) Explain signal to noise ratio.   |   |
| 2 | (A) Explain the construction and working of SCR with the help of two transistor analogy. | 7 |
|   | (B) Classify SMPS and state its advantages and disadvantages.                            | 7 |

**OR**

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|---|---|---|
| 2 | (A) Compare SMPS and Linear type of power supplies. State the drawbacks of Linear Power Supply. | 7 |
|   | (B) Explain the construction and working of TRIAC.  | 7 |

- 3 (A) Give the classification of UPS. Explain any of it in detail with the help of block diagram. 10
- (B) Explain the importance of phase synchronization in UPS. 4
- OR**
- 3 (A) Give the principle of Inverter. Explain McMurray inverter in detail. 10
- (B) State the principle of Chopper and differentiate them. 4
- 4 Write short notes : **(any two)** 14
- (A) McMurray Bedford inverter
- (B) IC SG 3524 block diagram
- (C) Battery Charger
- (D) Continuous duty UPS.
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