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) Fill up strictly the details of ☐ signs on your answer book.
Name of the Examination :
SECOND YEAR B. SC. (SEM. IV)
Name of the Subject :
ELECTRONICS : PAPER - V
Subject Code No. : 3 0 6 3 ☐ Section No. (1, 2, ....) Nil
Seat No. :
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.

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 7
   the help of two transistor analogy.
   (B) Classify SMPS and state its advantages and 7
   disadvantages.

   OR

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

AC-3063] [Contd...
3  (A) Give the classification of UPS. Explain any of it in detail with the help of block diagram.
    (B) Explain the importance of phase synchronization in UPS.  

    OR

3  (A) Give the principle of Inverter. Explain McMurray inverter in detail.
    (B) State the principle of Chopper and differentiate them.

4  Write short notes: (any two)  
    (A) McMurray Bedford inverter
    (B) IC SG 3524 block diagram
    (C) Battery Charger
    (D) Continuous duty UPS.