A-2991
Second Year B. Sc. (Sem. III) Examination
March/April – 2015
Electronics : Paper - IV
(Advance Digital Electronics & Circuit Design)

Time : 2 Hours] [Total Marks : 50

Instructions :
(1) Fill up strictly the details of signs on your answer book.
(2) Figures on the right indicate full marks
(3) All symbols and abbreviations have their usual meaning.
(4) Non-programmable calculators are allowed.
(5) Q.1 is compulsory.
(6) Assume data if necessary.

1 Answer in short (4×2) :
   (a) State the main limitations of the S-R Flip Flop
   (b) Compare RAM and ROM
   (c) Why we use buffer register?
   (d) State the various applications of the counters

2 (a) Draw the circuit diagram of D- Flip Flop and explain the truth table of it.
   (b) Explain the working of the clocked RS flip flop

   OR
   (a) Explain how we use flip flop in register and explain Bidirectional register in brief.
   (b) Explain serial in, serial out Shift register with circuit diagram.

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3 (a) Explain MOD-08 Counter in detail with all counting sequences.
(b) Explain working of the Ripple Counter in detail.

OR

(a) Explain working of 4-bit binary parallel adder in detail.
(b) Discuss the working of Digital Comparator

4 Write Short Notes: (Any Two)
(1) J –K Flip Flop
(2) Semiconductor memory
(3) Serial In Parallel Out Register
(4) BCD adder.