



V.P. & R.P.T.P. SCIENCE COLLEGE

S.Y.B.Sc EXAMINATION

SEMESTER – III

US03ECSC01: Digital Computer Electronics

Date: 04/10/2016

Time: 03:00pm to 04:00pm

Marks: 25

Q1 Multiple choice of Question:

[3]

- 1) An invert gate is also called a _____ gate.
A. NOR B. NOT C. XNOR D. NAND
- 2) In k-map, octets eliminates _____ variable.
A. ONE B. TWO C. THREE D. FOUR
- 3) Half adder is logic Circuit that adds.Digit at a time
A. 1 B. 2 C. 3 D. 4

Q2 Answer the following in short (Any 2):

[4]

- 1) Write truth table for: $A'B+B'C$.
- 2) Define comparator in short.
- 3) Draw full adder Circuit Diagram.

Q3 Explain De'morgan first and second theorem in detail.

[6]

OR

Q3 Explain AND, NOR, NAND Gates.

[6]

Q4 Simplify using k-map: $F(A,B,C,D)=\sum(1,3,5,6,8,11,15)$

[6]

OR

Q4 Define decoder. Explain 3x8 decoder in detail.

[6]

Q5 What is Multiplexer? Explain 4x1 multiplexer in detail.

[6]

OR

Q5 Explain 1's Complement adder-subtractor in detail.

[6]