(127) SEAT No._____ No. of Printed Pages : 1 S.C

SARDAR PATEL UNIVERSITY

First Year BBA-ITM (3 Years) (SEM–I) (CBCS) EXAMINATION

DATE: 11/11/2017, Saturday TIME: 2:00p.m to 4:00p.m

UM01EBBI06: Digital Computer Electronics

Total Marks: 60

Note: **1.** All the questions are compulsory. **2.** Figures to the right indicate marks.
3. Start a new question from a new page.

Q.1

a. Perform the following: **[15]**

1. Convert $66.5_D = (?)_B$
2. $1101_B\text{-}101_B = (?)_B$ using 1's complement method.
3. Represent $+23_D$ using Signed Magnitude Integer Representation method.
4. Convert $66.5_D = (?)_H$
5. Represent $+23.5_D$ using Floating Point Representation method.

OR

Q.1

a. Write a note on Octal Number System. **[05]**

b. Write a note on Signed Magnitude Integer Representation method giving an example. **[05]**

c. Convert $41.2_D = (?)_O = (?)_B = (?)_H$ **[05]**

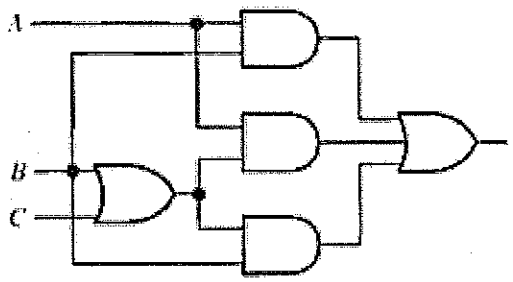
Q.2

a. Draw the circuit for the equation and also reduce it: $A.B + A'.B + A.B' + A.B$ **[07]**

b. Write a note on NAND and NOR gates with 3-inputs, giving symbol and truth table. **[08]**

OR

Q.2

a. 

Construct the equation of the given circuit. Reduce the expression and give its circuit diagram. **[07]**

b. Explain both the 1st and 2nd De Morgan's theorems. Give the Truth tables of the equations to show the equivalence of each theorems. **[08]**

Q.3

a. Write a note on Decimal-to-Binary Encoder. Give its circuit diagram and explain. **[07]**

b. Write a note on Half adder. Give its diagram and explain. **[08]**

OR

Q.3

a. Write a note on Binary-to-Decimal Decoder. Give its circuit diagram and explain. **[07]**

b. Write a note on Full adder. Give its diagram and explain. **[08]**

Q.4

a. Write a note on D Latch. Give its circuit diagram and explain. **[07]**

b. Write a note on Shift-Right Register. Give its block diagram and explain. **[08]**

OR

Q.4

a. Write a note on RS Flip Flop. Give its circuit diagram and explain. **[07]**

b. Write a note on Shift-Left Register. Give its block diagram and explain. **[08]**

********ALL THE BEST********

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