SC

(80 & A-31) SEAT No._____ No. of Printed Pages : 1

SARDAR PATEL UNIVERSITY

First Year BBA (ISM) (Sem-I) EXAMINATION

DATE: 10/11/2017, Friday

TIME: 02:00p.m to 04:00p.m

UM01CBBS02: Logical Organization of Computer

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. Do as Directed: **[15]**
1. $43.4_O = (?)_D = (?)_H = (?)_B$
2. Represent **ISM** using ASCII code
3. Represent 15_D using Excess 128 notation
4. $89_D - 11011_B$ using 1's Compliment method
5. 1110_B-10110_B using 2's Complement method

OR

a. Write a note on Block diagram of a simple computer and explain its various functional units. **[07]**

b. Write a note on ASCII and EBCDIC Character Representation methods. **[08]**

Q.2

a. Write a note on NAND gate giving the gate diagram and truth table for 3-input. **[05]**

b. Explain the De Morgan's First Theorem. **[05]**

c. Draw the circuit for the equation and also reduce the equation: **[05]**

$A.B + A'.B + A.B' + A.B$

OR

a. Write a note on NOR gate giving the gate diagram and truth table for 3-input. **[05]**

b. Prove that: A(A + B) + (B + AA)(A + B) = A+B using Truth Tables method. **[05]**

c. Simplify this using k-map $F(A,B,C)=\sum(1,3,5,6)$ **[05]**

Q.3

a. Write a note on the data path of a typical Von-Neuman machine. **[07]**

b. Write a note on Multi-Processors and Array Processors. **[08]**

OR

a. Write a note on Pipelining machines and Multifunctional Units. **[07]**

b. Write a note on Instruction Execution Cycle of a computer. **[08]**

Q.4

a. What is a Floppy Disk? Write a note on Construction and Storage of data on a Floppy Diskette. **[05]**

b. What is an Input device? Explain any one of the Input devices. **[05]**

c. Write a note on RAM. How does it differ from ROM? **[05]**

OR

a. What is a Hard Disk Drive? Write a note on Construction and Storage of data on a Hard Disk Drive. **[05]**

b. What is an Output device? Explain any one of the Output devices. **[05]**

c. Write a note on ROM. How does it differ from RAM? **[05]**

********Best Of Luck********

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