

(4) Seat No.: \_\_\_\_\_

No. of Printed Pages : 1

**SARDAR PATEL UNIVERSITY**  
**BBA(ISM) -1<sup>st</sup> SEM Examination (NC)**  
**Logical Organization Of Computers (UM01CBBS02)**  
**Date: 14/03/2017, Tuesday**  
**Time: 2.00 P.M TO 4.00 P.M**

Total Marks: 60

**Q-1 [A]** Explain Block Diagram of a simple Computer and its different functional units. [07]

**[B]** Convert following number System [08]

i)  $(AF8)_{16} = ( ? )_8$       ii)  $(10110110)_2 = ( ? )_{10}$

iii)  $(25)_8 = ( ? )_{10}$       iv)  $(157)_8 = ( ? )_{16}$

OR

**Q-1 [A]** Explain Signed Magnitude, 1's Complement & 2's Complement? [07]

**[B]** Explain Hamming code method & Number System with suitable examples. [08]

**Q-2 [A]** What is Boolean algebra? Explain in brief postulates of Boolean Algebra. [07]

**[B]** Prove the D'Morgan's theorem by method of perfect induction. [08]

OR

**Q-2 [A]** What is the difference between i) OR and XOR Gates

ii) AND and NOT Gates

in detail with **Circuit diagram & Truth table.** [07]

**[B]** Prove the following theorem i)  $X + X \cdot Y = X$        $X \cdot (X + Y) = X$  [08]

ii)  $\overline{\overline{A}} = A$

**Q-3 [A]** Explain in detail processor function with diagram? [07]

**[B]** Explain Instruction level parallelism in detail with diagram.. [08]

OR

**Q-3 [A]** Explain Processor level parallelism in detail with diagram. [07]

**[B]** What is the difference between Arithmetic Logic Unit & Registers. [08]

**Q-4 [A]** Explain ROM, RAM, PROM, and EROM in detail. [07]

**[B]** What is the difference between Dot-Matrix printer and Ink-Jet Printer. [08]

OR

**Q-4 [A]** What is MOUSE? Explain different types of MOUSE. [07]

**[B]** Explain in detail : i) Hard - Disk      ii) Scanners [08]

BEST OF LUCK