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SARDAR PATEL UNIVERSITY
BBA(ISM) -1st SEM Examination
Logical Organization Of Computers (UM01CBBS02)
Date: 16/04/2016 , Saturday
Time: 2.30 P.M TO 4.30 P.M

Total Marks: 60

Note: All Question Carry Equal Marks.

Q-1 [A] What is number system? Explain Binary ,Octal ,Hexadecimal &

Decimal number system. [07]

[B] Convert following number System [08]

i) $(1AF)_{16} = ($ $)_{10}$ ii) $(101010.101)_2 = ($ $)_{10}$

iii) $(25.75)_{10} = ($ $)_2$ iv) $(25)_8 = ($ $)_{10}$

OR

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

[B] What is error detection & Correction code? Explain Hamming code

method with suitable examples. [08]

Q-2 [A] Explain **AND , NOT, NOR** Gates in detail with **Circuit diagram &**

Truth table. [07]

[B] Prove the following theorem by method of perfect induction

i) $x + x \cdot y = X$ ii) $x \cdot (\overline{X} + y) = X \cdot y$ [08]

OR

Q-2 [A] Explain **OR , NAND, XOR** Gates in detail with **Circuit diagram &**

Truth table. [07]

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

ii) $x + 1 = 1$ $x \cdot 0 = 0$

(P.T.O.)

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Q-3 [A] Explain Instruction Execution Cycle in details?   [07]

[B] What is ALU? Explain Registers .What are the different types of registers
& their functions.   [08]

<div align="center">**OR**</div>

Q-3 [A] Explain control unit in detail with diagram.   [07]

[B] What is difference between Multifunctional unit processor &
Multiprocessor. Explain with diagram   [08]

Q-4 [A] What is difference between Volatile & Non-Volatile memory?   [07]

[B] What is Printer ?Explain any two types of Printers in detail with
Diagram.   [08]

<div align="center">**OR**</div>

Q-4 [A] What is KEY BOARD? Explain functionality of KEY BOARD.   [07]

[B] Explain in detail : i) Floppy Disk   ii) OCR   [08]

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