DHARMSINH DESAI UNIVERSITY, NADIAD
Third Sessional Examination [Semister : I (MCA)]
Subject: Logical Organization of Computers
Date: 11-12-2008 Time: 1 Hour Max Marks:36

Q.1 Answer the Following questions. [Marks : 12]

1 What is called negative edge triggering?

2 LSI Provides_____, MSI Provides _____ and VLSI Provides_____ maximum integrated gates.

3 A set of instructions is called _____

4 There are different _____ flags available in 8085 Microprocessor.

5 Multiple choice :

1 Data bus is a
a) Unidirectional b) Bidirectional c) Both

2 Control Bus has how many lines?
a) 8-bits b) 16-bits c) None of the above

3 Stack pointer consists total number of bits are
a) 8-bits b) 16-bits c) 32-bits

6 State True or False (Justify)
1) Program counter register store address of instructions
2) Two-Byte instructions stores opcode and operand in same memory location
3) In ripple counter pass clock signals to each flip flop

7 Match following table

Instructions	**Hex Code**
ADD A	3EH
MVI A	87H

Q2. Answer the Following questions. [Any Three] [Marks 12]

A Discuss Master Slave Flip Flop with Diagram.

B Discuss BCD Ripple counter with appropriate logic gates.

C Explain data transfer and branch instruction set with appropriate example

D Draw a block diagram of RAM Memory unit and how to perform read operation.

E What is meant by Microprocessor? Draw 8085 microprocessor Hardware model and explain functionality of each.

Q3. Answer the Following questions. [Marks : 12]

A Draw block diagram of memory cell [02]

B Discuss 4-bit binary Synchronous counter with appropriate logic gates. [05]

C Draw architecture of 8085 MPU and explain it. [05]

OR

A Check the addressing modes of the following instructions
1) LDAX B 2) LXI SP, 2000H 3) MOV A,B 4) LDA 2000H [02]

B Write a program to add two 8-bit data from memory location 0030H and 0031H. Store result in accumulator register and Draw flowchart. [05]

C What is meant by shift register?
Explain Shift Right Operation with D-Flip Flop. [05]

---- BEST LUCK ----