Department of Computer Science
Forman Christian College
(A Chartered University)
Lahore

Digital Logic Design
COMP 206

DIGITAL LOGIC DESIGN
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LAB 09- RUBRIX

DESCRIPTION	MARKS ALLOCATED
Attendance	5%
Proper handling of components, ICs and wiring	20%
Hardware wired completely(for all circuits)	30%
End questions	45%

Marks will be deducted in case if students have not completely and correctly filled the data tables.
Note that these marks are max in each category. We may assign less than the given percentage of marks in case students have not successfully completed all the requirements.
This lab is time constrained. Please note that you must finish your work and submitted duly filled handout to the lab engineer within given time.

LAB 9
MAGNITUDE COMPARATOR

Name:

Roll No:

Date:

Learning Objectives:

By the end of this lab, you will implement a circuit to compare two 4-bit binary numbers.

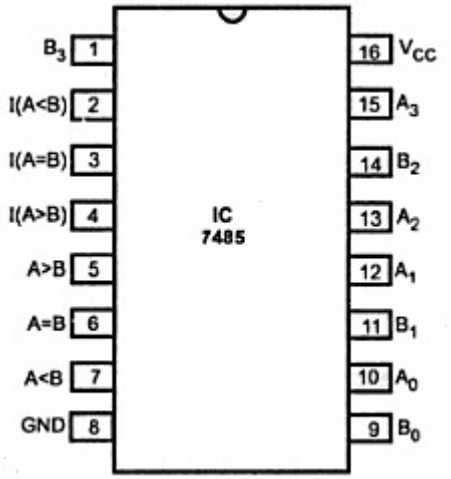
Background:

A magnitude digital Comparator is a combinational circuit that **compares two digital or binary numbers** in order to find out whether one binary number is equal, less than or greater than the other binary number. We logically design a circuit for which we will have two inputs one for A and other for B and have three output terminals, one for A > B condition, one for A = B condition and one for A < B condition.

Experimental Setup:

1. **Components required:**
   - 7485
   - Connecting wires
   - Trainer board
2. **Procedure:**

Connect the IC 7485 according to the pin configuration shown in the following figure.



3. **Record answers to the following inputs**

a. A=1010, B=1000, Output = _____

b. A=0011, B=0100, Output = _____

c. A = 0110, B=0110, Output = _____