AMERICAN INTERNATIONAL UNIVERSITY – BANGLADESH
Faculty of Engineering

Course Name: Digital Logic and Circuits   **Deadline: 04/07/2023(Class time)**

Semester: Summer2022-23   **Term**: Mid   **Assignment**: 01   **Total Marks**: 10

Question Mapping with Course Outcomes:

Item	COs	POIs	K	P	A	Marks	Obtained Marks
Q1	CO1	P.a.2.C3	K2			10	
					Total:	10	

Student Information:

Student Name:	**Student ID:**
Section:	**Department:**

Submission Instruction:

1. Design a system that can be used in a safety push button lock device. There will be two switches. If the value of A is greater than B or A is equal to B, lock mechanism opens. In any other case the lock mechanism remains closed. Let's say X is the lock mechanism, construct a truth table of the system and design the logic circuit for the system using magnitude comparator block diagram and necessary gate/s.   [10]