

UNITED INTERNATIONAL UNIVERSITY

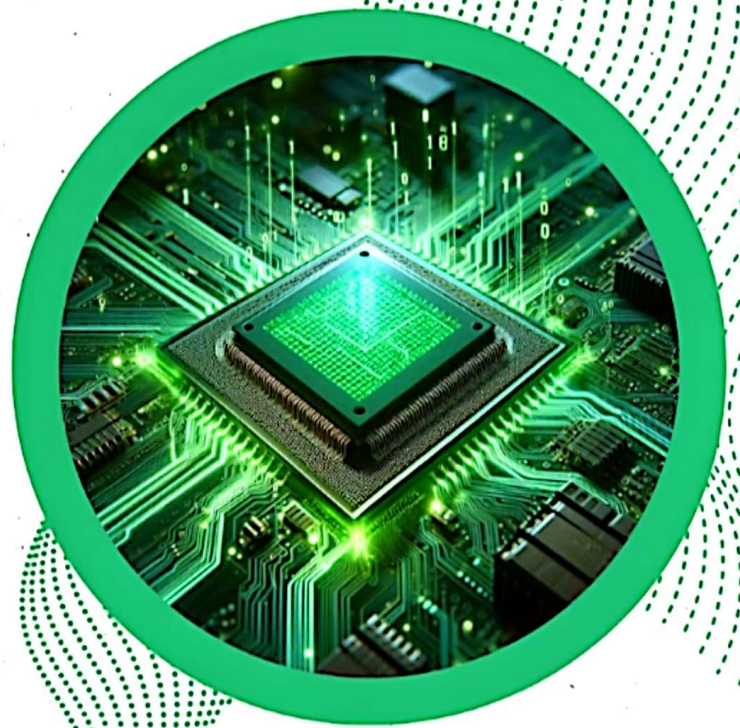
# ASSIGNMENT-2

*Prepared By*

**MD. SADMAN HAQUE**

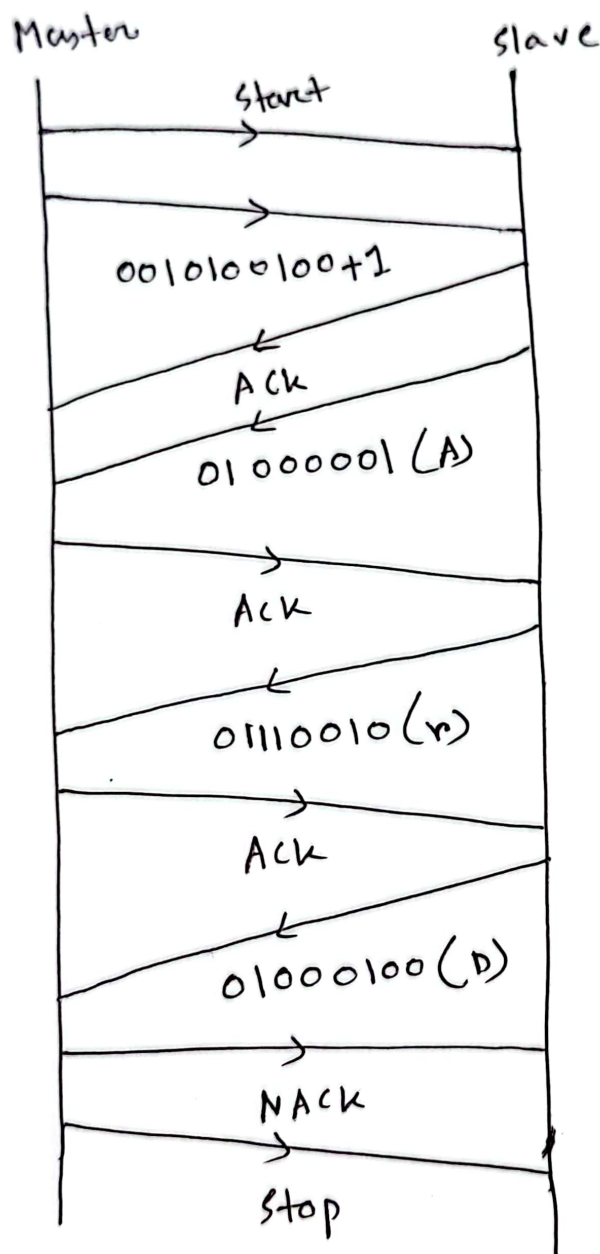
**ID:-** [REDACTED]

**MICROPROCESSORS AND  
MICROCONTROLLERS - A**



Ans to the ques no: 1

Master receives 3-byte data (from the string "Arduino") from slave-3  
[index: A4 H].



## Ans to the ques no: 2

(a)

11  $\rightarrow$  00011001  $\rightarrow$  25

12  $\rightarrow$  00010100  $\rightarrow$  20

13  $\rightarrow$  01100100  $\rightarrow$  100

14  $\rightarrow$  00100011  $\rightarrow$  35

15  $\rightarrow$  00011011  $\rightarrow$  27

Assembly code:

0D LDA 15D

1D ADD 14D

2D ADD 14D

3D SUB 11D

4D OUT XX

5D HLT XX

(Ans)

<u>Address</u>	<u>Content</u>
0 → 0000	1111
1 → 0001	1110
2 → 0001	1110
3 → 0010	1011
4 → 1110	xxxx
5 → 1111	xxxx
6 → xxxx	xxxx
7 → xxxx	xxxx
8 → xxxx	xxxx
9 → xxxx	xxxx
10 → xxxx	xxxx
11 → 0001	1001
12 → 0001	0100
13 → 0110	0100
14 → 0010	0011
15 → 0001	1011

from slide,  
Mnemonic      opcode

LDA → 0000

ADD → 0001

SUB → 0010

HLT → 1111

OUT → 1110

(Ans)