Quiz 1 ***(CSE331L.1 – Asif Ahmed Neloy\_Fall’20)***

Department of Electrical and Computer Engineering

School of Engineering and Physical Sciences

North South University, Bashundhara, Dhaka-1229, Bangladesh

*Time 20 minutes, Marks 10 (You need to answer all questions).*

*Name : Sumit Kumar Das*

*Id : 1731847642*

1. **Explain DAA and write the asm code using the following example –**

**AL 27H and AL 35H**

The DAA Decimal Adjust after Addition instruction allows addition of numbers represented in 8-bit packed BCD code. It is used immediately after normal addition instruction operating on BCD codes. This instruction assumes the AL register as the source and the destination, and hence it requires no operand.

NUM1 DB 27H

NUM2 DB 35H

.CODE

.STARTUP

MOV AL, NUM1 ;load AX with number NUM1

ADD AL, NUM2 ;AL = AL + NUM2 i.e. AL = 5CH = 92 in decimal

;The expected result is 62 in decimal

DAA ; AL = 62

.EXIT

END

**2.** Explain the “**CMP**” and “**Test**” instruction from the following example. Also, write which one of these affect the flag register and why.

**CMP AL, 000h**

**TEST AL, 001h**

CMP result is not stored anywhere, flags are set (OF, SF, ZF, AF, PF, CF) according to result.

TEST Logical AND between all bits of two operands for flags only. These flags are effected: ZF, SF, PF. Result is not stored anywhere. These rules apply: 1 AND 1 = 1 1 AND 0 = 0 0 AND 1 = 0 0 AND 0 = 0.

**End**