

Quiz 4 ***(CSE331L.7 – Asif Ahmed Neloy\_Summer’20)***

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

# Explain DAA and write the asm code using the following example –

**AL 27H and AL 35H**

DAA - This instruction is used to make sure the result of adding two packed BCD numbers is adjusted to be a

legal BCD number. The result of the addition must be in AL for DAA to work correctly. If the lower

nibble in AL after an addition is greater than 9 or AF was set by the addition, then the DAA instruction

will add 6 to the lower nibble in AL. If the result in the upper nibble of AL in now greater than 9 or if the

carry flag was set by the addition or correction, then the DAA instruction will add 60H to AL.

CODE:

1. 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 –** This instruction compares a byte/word in the specified source with a byte/word in the specified

destination.

**TEST** - This instruction ANDs the byte/word in the specified source with the byte/word in the specified destination.

CMP AL, 000h is affect the flag register. The source and the destination are not changed, but the flags are set to indicate the results of the comparison.

On the other hand > TEST AL, 001h

Flags are updated, but neither operand is changed.

**End**