

Name: KEY

Id#

COE 205, Term 061
Computer Organization & Assembly Programming

Quiz# 4

Date: Sunday, Dec. 3, 2006

Q1. Given that **TABLE** is defined as: **TABLE db 'Ahmad Ali Anas'**

Determine the content of **TABLE** after executing the following code and describe briefly what the code is doing:

```
MOV CX, lengthof TABLE
LEA BX, TABLE
DEC BX
Next: INC BX
      CMP Byte PTR [BX], `A`
      LOOPNE Next
      JNE ENL
      OR Byte PTR [BX], 20h
      JCXZ ENL
      JMP Next
ENL:
```

The content of **TABLE** after executing this program is:
ahmad ali anas. This program replaces characters **A** with **a**.

Q2. Write an assembly program to implement the following code assuming that signed numbers are represented in registers:

<pre>WHILE (AX > 0) { IF (BX < CX) AND (BX <= 100) { BX = BX + DX; } ELSE { BX = BX - 2; } AX = AX - 1; }</pre>	<pre>CMP AX, 0 JNG EndWhile CMB BX, CX JNL ELSE CMP BX, 100 JG ELSE ADD BX, DX JMP EndIf ELSE: SUB BX, 2 EndIf: DEC AX EndWhile:</pre>
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