

CSE 331L / EEE 332L: Microprocessor Interfacing & Embedded System

Section: 7, Summer 2021

Quiz - 02

Marks: 10

Time: 25 mins

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Q1. Write instructions to implement a count controlled loop to display the first 50 characters of the ascii table in a row. (6)

Ans: mov ah, 2h
 mov cx, 50
 mov dl, 0h

print:
 int 21h
 inc dl
 loop print

The following program creates a string in data segment memory and prints it using the “single key output function”, but there are some errors in it.

```
03 .MODEL SMALL
04 .STACK 100H
05 .DATA
06     str db 33h, 54h, 34h, 55h
07 .CODE
08
09     mov bx, @data
10     mov ds, ax
11
12     mov si, 0
13
14     display:
15     mov dl, str[si]
16     int 21h
17
18     inc si
19     loop display
20
21     EXIT:
22     MOV AH, 4CH
23     INT 21H
```

Q2: Find how many errors there are in the given code, and write the correct instructions. (4)

Ans:

There are 3 errors.

Line 8: `mov ax, @data`

`mov ah, 2h` is missing before `display` label, or inside `display`

`mov cx, 4h` is missing before `display` label

corrected code:

`mov ax, @data`

`mov ds, ax`

`mov si, 0`

`mov ah, 2h`

`mov cx, 4h`

`display:`

`mov dl, str[si]`

`int 21h`

`inc si`

`loop display`