

Quiz – 2

Course: CSC325 – Computer Organization and Assembly Language

Class / Instructor: BCS IV / Taimur Shahzad **Time Allowed (min) / Total Marks:** 30 / 10

Date: November 10, 2022

Name: _____ **Reg. no:** _____

1 – [CLO-C2] Let's assume that the data segment begins at 00124000 h. What will be the value of ESI register after the execution of each of the following instructions:

.data

Val1 BYTE 23h, 56h, 92h, 40h

Val2 WORD 0893h, 3428h, ?

Val3 DWORD 1234h, 9876ABCDh

array1 BYTE 1000 DUP (20)

.code

mov esi, OFFSET Val1 + 4 ; **ESI** =

mov esi, OFFSET Val3 + 2 ; **ESI** =

mov esi, OFFSET Val2 + 9 ; **ESI** =

mov esi, OFFSET array1 + 2 ; **ESI** =

2 – [CLO-C2] What will be the output after the execution of each of the following instructions:

.data

Val1 BYTE 23h, 56h, 92h, 40h

Val2 WORD 0893h, 3428h, 0

array1 BYTE 1000 DUP (20)

.code

mov ax, WORD PTR Val1+2 ; **AX** =

mov al, BYTE PTR Val2+1 ; **AL** =

mov eax, DWORD PTR array1 ; **EAX** =

3 – [CLO-C2] Spot the error in each of the following instructions in code segment and write correct statement(s).

.data

x byte 10h

y byte 20h

.code

mov bx, x

add x,y

```
mov [ebx], [esi]
```

4 – [CLO-C4] Write the equivalent code in assembly language for the following statements written in Java:

```
int a = 16, b = 19, d= 45, e;
```

```
e = -1*(a + b) - d;
```