CS2400(3) Computer Organization 2 - Spring 2020

Question **1**

If stack is given as **{ 3 (bottom element) ,12, 2, 4, 5, 6, 1, 2(top element) }** .What will be the content of registers R3, R4 after the following operation: POP {R3-R4} .

Select one:

a. {3,12,2,4,5,6} , R3=2, R4=1

Question **2**

Assume the stack pointer (SP) is initialized to 0x20000000. Registers R0, R1, R2 and R12 are initialized to 12, 3, 8 and 5 respectively. Answer the following: Show the content of the stack and the SP after the following sequence of operations.

PUSH {R12}

PUSH {R1-R2}

PUSH {R0}

a. {3,12,2,4,5,6} , R3=2, R4=1

Question **3**

If R4 is having memory address location 105, what will be stored in the address location after executing the following instruction.

```
MVN     R3, # -10
STR     R3, [R4]
```

d. 9

Question **4**

Which of the following instructions modifies both the lr and the pc?

Select one:

c. BL Label

Question **5**

Compare instruction which does not change the V or C flags.

Select one:

d. TEQ

Question **6**

If R0 = 11100101 and R1 =11111111 EOR R0,R0,R1 gives R0=?

a. 00011010

Q7)

LDR R0, [R1, #d]!

Check all that apply

- [x] b. Base Updated
- [x] c. Pre-Indexed

Question **8**

Assume X1 has 50 and X2 has 30.

From the below-given code, If X3 is 0, which instruction executes after CBNZ?

```
        CBNZ X3, Else
        ADD X0, X1, X2
        B Exit
Else    SUB X0, X1, X2
Exit
```

- ( ) a. ADD

Question **9**

Assume X1 has 50 and X2 has 30. From the below-given code. B Exit is executed when X3 _____ 0.

```
        CBNZ X3, Else
        ADD X0, X1, X2
        B Exit
Else    SUB X0, X1, X2
Exit
```

- ( ) b. =

Question **10**

The BL instruction copies the values in registers to the stack.

- ( ) False