

Quiz 1A Solution

رقم الشعبة: 2

رقم التسجيل:

الاسم:

**Instructions:** Time **10** minutes. Closed books and notes. No calculators. Please answer all problems in the space provided. **No questions are allowed.**

&lt;Good Luck&gt;

**Q1.** State six features of the PIC microcontrollers.

<b>1. Low-cost</b>	<b>4. Harvard structure</b>
<b>2. Self-contained</b>	<b>5. Pipelined</b>
<b>3. 8-bit</b>	<b>6. RISC</b>
<b>7. Single accumulator</b>	<b>8. Fixed reset and interrupt vectors</b>

**Q2.** What is the main difference between PIC 16LF84A and PIC 16F84A?

**The 16LF84A has extended supply voltage range that allows operation at lower voltages compared to the 16F84A's voltages.**

**Q3.** What is the effect of the following instruction?

```
org 20
call 100
```

**The subroutine at address 100 is called.  
The Program Counter (PC) is loaded with 100.  
21 is pushed to the stack.**

**Q4.** How does the following instruction affect subsequent instructions?

```
status equ 3
bcf status,5
```

**Subsequent instructions will access memory Bank 0, not Bank 1.**

**Q5.** What is the content of the working register after executing the following sequence of instructions?

```
movlw 0x8d
xorlw B'00001111'
sublw 0xff
```

**1000 1101 xor 0000 1111 = 1000 0010  
1111 1111 - 1000 0010 = 0111 1101**