Cairo Higher Institute
Systems and Computer Engineering Dept.
Advanced Topics in Embedded System

Quiz (1)

Total Time : 30 Min **Final Mark: 20**

Part I : Answer the following questions by marking the best answer among the choices given (1.5 Mark each)

1. To branch in the code with destination address within 512 byte it's sufficient to use ….....

   a) Relative addressing mode.
   b) Long addressing mode.
   c) Absolute addressing mode. *

2. C8051F020 micro-controller memory location 05FH when accessed using direct addressing mode refers to …..

   a) a Special function register
   b) a General purpose RAM location *
   c) an out of Range Addressing

3. In C8051F020 micro-controller we can't have any register greater than ….

   a) 4-bit.
   b) 8-bit.
   c) 16-bit *

4. In C8051F020 micro-controller assembly language the following instruction is an example for …..... addressing mode.

```
mov  A, #030H
```

   a) Immediate constant *
   b) Relative
   c) Indirect

5. During writing an assembly code for C8051F020 micro-controller, a delay loop was needed to make a delay of some time it was writing as following:

```
        mov  R0, #020H
loop1:
        djnz R0, loop1
```

   so this code make a delay of about …...

   a) 20 clk cycle.
   b) 60 clk cycle. *
   c) Infinite loop.

6. The Following part of code is used for …....

```
mov WDTCN , 0xA5H
```

a) Enable Watchdog timer. *
b) Disable watch dog timer.
c) None of the above.

7. The SFR could be addressed using ..... addressing mode

a) Direct. *
b) Indirect.
c) Both (a) and (b).

8. In C8051F020 micro-controller assembly language the following instruction belongs to ….....

```
XCH A, @R1
```

a) Arithmetic operation.
b) Logical operation.
c) Data transfer operation. *

9. Logic 1 will cause the Port pin which is configured as open-drain to be driven to …....

a) VDD.
b) GND.
c) High-impedance state . *

10. C8051F020 micro-controller memory location 06FH is ….....

a) Bit Addressable only.
b) Byte addressable only. *
c) Both (a) and (b).

Part II: Mark the following statements as either True (T) or False (F). (1 Mark each)

11. The Difference between lcall and ljmp that ljmp doesn't return to its branching instruction. (T)
12. The C code written for C8051F020 can run as it is on any other micro-controller. (T)
13. The SFR responsible for Port 5 configuration as push-pull out is 0xC5. (F)
14. Watchdog timer must be periodically checked in order for the program using it to run correctly (F)
15. Word size of C8051F020 micro-controller is 16-bit. (F)
16. The following code is a valid C8051F020 assembly code `mov R1, #350` (F)
17. The following code is a valid C8051F020 assembly code `mov 4FH, 0FFH` (T)
18. The following code is a valid C8051F020 assembly code `mov P5.2,C` (F)
19. The following code is a valid C8051F020 assembly code `inc 3FH` (T)
20. The following code is a valid C8051F020 assembly code `SUBB A, @R0` (T)