Unit 10 - Week 8

Course outline

How does an NPTEL online course work?

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Week 8

- Lecture 37 : 8051 Programming Examples (Contd.)
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- Lecture 39 : 8051 Programming Examples (Contd.)
- Lecture 40 : 8051 Programming Examples (Contd.)
- Lecture 41 : ARM
- Week 8 Lecture Material
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Assignment 8

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Due on 2020-03-25, 23:59 IST.

1) 1 point

Which register bank of R0 – R7 do we have access to when the 8051 is powered up?

a) Bank 0
b) Bank 1
c) Bank 2
d) Bank 3

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
a.

2) 1 point

Determine which of the register banks of R0 – R7 is selected if the following instruction is executed just after powering an 8051.

SETB PSW.3

a) Bank 0
b) Bank 1
c) Bank 2
d) Bank 3

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
b.

3) 1 point

Which of the following statements is FALSE regarding an 8051?

a) The stack pointer in the 8051 is only eight bits wide.
b) When the 8051 is powered up, the SP register contains the value 07.
c) The storing of a CPU register in the stack is called a PUSH.
d) As we push data onto the stack, the stack pointer is decremented by one.

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
d.

4) 1 point

Determine the contents of the top of the stack and the value of the stack pointer (SP) after the following instructions are executed in an 8051.

```
MOV SP, #6FH
MOV R1, #10H
MOV R6, #0FH
MOV R3, #03H
MOV R2, #FFH
PUSH 3
PUSH 2
PUSH 1
PUSH 6
```

a) SP = 74H, Top of the stack = 03H
b) SP = 73H, Top of the stack = 03H
c) SP = 74H, Top of the stack = 0FH
d) SP = 73H, Top of the stack = 0FH

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
d.

5) 1 point

How many times the instruction CPL A is executed in the following program of an 8051?

```
        MOV A, #F0H
        MOV R1, #60
NEXT:   MOV R6, #10H
AGAIN:  CPL A
        DJNZ R6, AGAIN
        DJNZ R1, NEXT
```

a) 600 times
b) 900 times
c) 690 times
d) 960 times

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
d.

6) 1 point

What is the content of Register A after executing following instructions?

```
        MOV A,#0
        MOV R2,#10
AGAIN:  ADD A,#03
        DJNZ R2,AGAIN
        MOV R5,A
```

a) A = 10
b) A = 13
c) A = 30
d) A = 0

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
c.

7) 1 point

Find out the roll over value for the timers in Mode 0 and Mode 1 of an 8051?

a) 00FFH,0FFFH

b) 1FFFH,0FFFH

c) 1FFFH,FFFFH

d) 1FFFH,00FFH

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
c.

8) 1 point

Which control signal/s is/are generated by timing and control unit of 8051 microcontroller in order to access the off-chip devices apart from the internal timings?

a) ALE
b) PSEN
c) RD & WR
d) All of the above

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
d.

9) 1 point

ARM was originally known as

a) Acron RISC Machine
b) Advanced RISC Machine
c) Ashton Raggatt McDougall
d) Automatic RISC Machine

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
a.

10) 1 point

RISC stands for _____

a) Restricted Instruction Sequencing Computer
b) Restricted Instruction Sequential Compiler
c) Reduced Instruction Set Computer
d) Reduced Induction Set Computer

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
c.