

X


<https://swayam.gov.in>

https://swayam.gov.in/nc_details/NPTEL

arihantguptapc1@gmail.com ▾

[NPTEL \(https://swayam.gov.in/explorer?ncCode=NPTEL\)](https://swayam.gov.in/explorer?ncCode=NPTEL) » Microprocessors And Microcontrollers (course)


Click to register
for Certification
exam

https://examform.nptel.ac.in/2026_01/exam_form/dashboard

If already
registered, click
to check your
payment status

Course
outline

About
NPTEL ()

How does an
NPTEL
online
course
work? ()

Week 0 : ()

Week 1 ()

Week 2 ()

Week 3 ()

Week 4 ()

Week 5 ()

Week 8 : Assignment 8

The due date for submitting this assignment has passed.

Due on 2025-03-19, 23:59 IST.

As per our records you have not submitted this assignment.

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

Week 6 ()**Week 7 ()****Week 8 ()**

- Lecture 37 :
8051
Programming
Examples
(Contd.) (unit?
unit=82&less
n=83)
- Lecture 38 :
8051
Programming
Examples
(Contd.) (unit?
unit=82&less
n=84)
- Lecture 39 :
8051
Programming
Examples
(Contd.) (unit?
unit=82&less
n=85)
- Lecture 40 :
8051
Programming
Examples
(Contd.) (unit?
unit=82&less
n=86)
- Lecture 41 :
ARM (unit?
unit=82&less
n=87)
- Lecture
Material (unit?
unit=82&less
n=88)
- Quiz: Week 8
: Assignment
8
(assessment?
name=214)**
- Feedback
Form (unit?
unit=82&less
n=161)

- 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.

Week 08:
Assignment
Solution (unit?
unit=82&lesso
n=199)

Week 9 ()

Week 10 ()

Week 11 ()

Week 12 ()

**Download
Videos ()**

**Text
Transcripts ()**

Books ()

Score: 0

Accepted Answers:

d.

5)

1 point

How many times is the instruction **CPL A** executed in the following **8051** assembly program?

MOV A, #55H

MOV R2, #50H

START: MOV R5, #0CH

LOOP: CPL A

DJNZ R5, LOOP

DJNZ R2, START

- a) 600 times
- b) 800 times
- c) 900 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

In the **8051 microcontroller**, what are the **rollover values** for the timers in **Mode 2** and **Mode 3**?

- a) **00FFH, FFFFH**
- b) **1FFFH, 0FFFH**
- c) **00FFH, FFFFH**
- d) **0FFH, FFFFH**

- a.
- b.
- c.
- d.

No, the answer is incorrect.

Score: 0

Accepted Answers:

d.

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) RISC stands for _____

1 point

- 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.

11)

1 point

Which instruction can be used to select Register Bank 3 in the 8051 microcontroller?

- a) SETB PSW.3
- b) SETB PSW.4
- c) SETB PSW.3 and SETB PSW.4
- d) CLR PSW.3 and CLR PSW.4

a.

b.

c.

d.

No, the answer is incorrect.

Score: 0

Accepted Answers:

c.

12)

1 point

Which control signal is used to latch the lower byte of an address while accessing external memory in the 8051?

- a) PSEN
- b) RD
- c) ALE
- d) WR

a.

b.

c.

d.

No, the answer is incorrect.

Score: 0

Accepted Answers:

c.

13) What is the primary advantage of RISC architecture?

1 point

- a) More instructions per cycle
- b) Simpler instruction set, faster execution
- c) Complex addressing modes
- d) More power consumption

a.

b.

c.

d.

No, the answer is incorrect.

Score: 0

Accepted Answers:

b.

14)

1 point

If the Stack Pointer (SP) is initialized to 50H, what will be its value after executing the following instructions?

PUSH A
PUSH B
PUSH R2
PUSH R7

- a) 54H
- b) 56H
- c) 52H
- d) 58H

a.

b.

c.

d.

No, the answer is incorrect.

Score: 0

Accepted Answers:

a.

