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Week 11 : Assignment 11

The due date for submitting this assignment has passed.

Due on 2025-04-09, 23:59 IST.

As per our records you have not submitted this assignment.

1) ***1 point***

Find the contents of control word of the 8255 for the following configuration:
All the ports of A, B and C are input ports (mode 1)

a) 3Fh
b) BFh
c) 9Fh
d) 1Fh

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

No, the answer is incorrect.
Score: 0

Accepted Answers:
b.

2) In 8255, bit addressability is available with port ***1 point***

a) A
b) B
c) C
d) D

- a.
- b.
- c.

d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
c.

3) ***1 point***

Which of the following representations related to the AVR microcontrollers is correct?

a) Timer/Counter 0 is an 8-bit up counter and timer/counter 1 is an 8-bit up counter
b) Timer/Counter 0 is an 8-bit up counter and timer/counter 1 is a 16-bit up counter
c) Timer/Counter 0 is a 8-bit up counter and timer/counter 1 is an 16-bit down counter
d) Timer/Counter 0 is a 16-bit up counter and timer/counter 1 is a 16-bit up counter

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
b.

4) ***1 point***

Which of the following statements correctly describes the output compare feature of AVR microcontrollers?

a) An AVR Timer/Counter 0 has a single output compare register (OCR0A).
b) An AVR Timer/Counter 0 has dual output compare registers (OCR0A and OCR0B).
c) An AVR Timer/Counter 1 has a single output compare register (OCR1A).
d) An AVR Timer/Counter 1 does not support output compare registers.

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
b.

5) ***1 point***

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Week 12 ()

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Which of the following represents the best description of an AVR timer/counter source when CS02 = 0, CS01 = 1, and CS00 = 1?

a) Stop, the timer/counter is stopped
b) CPU frequency is divided by 8 (CK/8)
c) CPU frequency is divided by 64 (CK/64)
d) CPU frequency is divided by 256 (CK/256)

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

No, the answer is incorrect.
Score: 0

Accepted Answers:
c.

6) ***1 point***

Which of the following registers holds the counter value of timer/counter 0 in an AVR microcontroller?

a) TCCR0
b) TCNT0
c) TCCR1A
d) TCNT1

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

No, the answer is incorrect.
Score: 0

Accepted Answers:
b.

7) ***1 point***

In an AVR microcontroller, interrupts are used for

a) RESET
b) Timers and Time-Critical Code
c) Hardware Signalling
d) All of the above

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

No, the answer is incorrect.
Score: 0

Accepted Answers:
d.

8) **1 point**

Why are interface chips essential in a microcontroller-based system?

a) They help in synchronizing data transfers and resolving speed mismatches between the CPU and I/O devices.
b) They only help in resolving the speed mismatch problem.
c) They only help in synchronizing data transfers.
d) None of the above.

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

No, the answer is incorrect.
Score: 0

Accepted Answers:
a.

9) **1 point**

Which of the following can be associated with bouncing contacts?

a) Push-button switches
b) Toggle switches
c) Both push-button switches and toggle switches
d) Neither push-button switches nor toggle switches

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

No, the answer is incorrect.
Score: 0

Accepted Answers:
c.

10) **1 point**

Which of the following is a hardware solution to suppress a switch bounce in a microcontroller based system?

a) An RC time constant whose value is smaller than the switch bounce
b) An LC time constant whose value is smaller than the switch bounce
c) An RC time constant whose value is larger than the switch bounce
d) An LC time constant whose value is larger than the switch bounce

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

No, the answer is incorrect.

Score: 0

Accepted Answers:

c.

11) ***1 point***

The term DIP in the phrase 'DIP switch' stands for

a) Double In-lane Package
b) Double In-line Package
c) Dual In-line Package
d) Dual In-lane Package

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

No, the answer is incorrect.
Score: 0

Accepted Answers:

c.

12) ***1 point***

In the 8255 Programmable Peripheral Interface (PPI), which control word should be used to reset BIT 4 of Port C in Bit Set/Reset (BSR) Mode?

a) 00001111
b) 10001111
c) 10001000
d) 00001000

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

No, the answer is incorrect.
Score: 0

Accepted Answers:

d.

13) ***1 point***

A common anode 7-segment display is connected to an 8051 microcontroller. If the binary combination 11000000 is applied to Port 1 (P1.7 - P1.0), which digit will be displayed?

a) 0
b) 1
c) 8
d) 6

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

No, the answer is incorrect.

Score: 0

Accepted Answers:

a.

14) ***1 point***

Which of the following is the correct combination to select Port C in an 8255 chip?

a) CS = 0, A1 = 0, A0 = 0
b) CS = 0, A1 = 0, A0 = 1
c) CS = 0, A1 = 1, A0 = 0
d) CS = 1, A1 = 0, A0 = 0

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

No, the answer is incorrect.
Score: 0

Accepted Answers:

c.

15) ***1 point***

In ADC 0804, which of the following statements is incorrect?

a) The Chip Select (CS) pin is active high.
b) The data output pins (D7-D0) provide an 8-bit digital output.
c) The default operating voltage range of ADC 0804 is 0 - 5V.
d) The reference voltage can be adjusted to modify the input range.

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

No, the answer is incorrect.
Score: 0

Accepted Answers:

a.