

Unit 9 - Week 7 : I/O Interfacing

Course outline

How does an NPTEL online course work?

Week 0 : Prerequisite

Week 1 : 8086 Architecture

Week 2 : 8086 Pins and Signals

Week 3 : 8086 Instruction Set I

Week 4 : 8086 Instruction Set II

Week 5 : Programming I

Week 6 : Memory Interfacing and Programmable Peripheral Interface

Week 7 : I/O Interfacing

Quiz : Assignment 7

Lec 1 : Keyboard Interface

Lec 2 : 7-segment Display Interface

Lec 3 : Multiplexed 7-segment Display Interface

Feedback form

Solution: Assignment 7

Week 8 : I/O Interfacing contd.

Week 9 : I/O Interfacing and Timer

Week 10: Programmable Interrupt Controller (8259)

Week 11: Programable DMA Controller (8237), Serial I/O

Week 12: Programable Communication interface(8251)

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Assignment 7

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

Due on 2020-03-18, 23:59 IST.

1) Which of the following operation is not involved in interfacing a keyboard to 8086?

0 points

- Detect a keypress
- Debounce the keypress
- Decode the keypress
- Encode the keypress

No, the answer is incorrect.
Score: 0

Accepted Answers:
Decode the keypress

2) The process of making sure a previous key has been released before looking for next one is called

1 point

- Decoding of the key
- Debouncing of the code
- Encoding of the key
- Two-key lockout

No, the answer is incorrect.
Score: 0

Accepted Answers:
Two-key lockout

3) In order to interface a hexadecimal keyboard to 8086

1 point

- One 8-bit port of 8255 must be programmed as input port and 4-bits of another port must be programmed as output port
- One 8-bit port of 8255 must be programmed as output port and 4-bits of another port must be programmed as input port
- One 8-bit port of 8255 and 4-bits of another port must be programmed as output ports
- One 8-bit port of 8255 and 4-bits of another port must be programmed as input port

No, the answer is incorrect.
Score: 0

Accepted Answers:
One 8-bit port of 8255 must be programmed as input port and 4-bits of another port must be programmed as output port

4) Let a BCD to 7-segment decoder (7447) is interfaced to a common anode type 7-segment display. If the BCD input to 7447 is 1001 and common signal of 7-segment display is connected to logic 1

1 point

- All the segments of display will be at logic 0
- Only the segment "e" will be at logic 0
- All the segments except "e" will be at logic 0
- All the segments except "e" will be at logic 1

No, the answer is incorrect.
Score: 0

Accepted Answers:
All the segments except "e" will be at logic 0

5) In order to drive eight 7-segment displays, the worst case current required would be

1 point

- 140 mA
- 160 mA
- 980 mA
- 1120 mA

No, the answer is incorrect.
Score: 0

Accepted Answers:
1120 mA

6) Which of the following circuit is preferred to drive relay coil?

1 point

- One PNP transistor buffer
- One NPN transistor buffer
- Darlington transistor
- IC buffer

No, the answer is incorrect.
Score: 0

Accepted Answers:
Darlington transistor

7) Which of the following circuit is preferred to drive motor winding?

1 point

- One PNP transistor buffer
- One NPN transistor buffer
- Darlington transistor
- Power MOSFET circuit

No, the answer is incorrect.
Score: 0

Accepted Answers:
Power MOSFET circuit

8) Which of the following circuit is not involved in the internal circuitry of solid-state relay?

1 point

- Phototransistor
- Rectifier
- Zero crossing detector
- Trigger circuit

No, the answer is incorrect.
Score: 0

Accepted Answers:
Rectifier