

### Question 129

Not yet answered

Marked out of 1

 Flag question

What is C2 C0 8A 16 Hex single precision FP converted to Decimal?

Select one:

- a. -9.781250
- b. 0.078125
- c. 9.7500
- d. -96.2697
- e. 152.1875

### Question 130

Not yet answered

Marked out of 1

 Flag question

A “pull down” resistor is used in digital circuits to do what?

Select one:

- a. To make sure the digital line is always high
- b. To keep the voltage at 0Volts
- c. To keep the signal line “tied” low until the line is active (goes high)
- d. To keep the voltage at 1Volt
- e. To keep the signal “tied” high until the line is active (goes low)

### Question 131

Not yet answered

Marked out of 1

 Flag question

FPU used in Intel Architecture is defined as which of the following?

Select one:

- a. Fast Processing Unit
- b. None of the answers
- c. Fine Point User
- d. all of the answers
- e. Floating Point Unit

## Question 132

Not yet answered

Marked out of 1

 Flag question

What is the voltage for IO output for an “OFF” signal?

Select one:

- a. Between 2.5V to 3.3V
- b. None of the answers
- c. Between 3.3V to 5V
- d. Between 0V to 5V
- e. all of the answers
- f. Around 0V

### Question 133

Not yet answered

Marked out of 1



In the MicroChip PIC with a bit mask = 0x00, what bit mask operation would be used to configure Port D to output?

Select one:

- a. ANDing
- b. XORing
- c. XNORing
- d. ORing

**Question 134**

Not yet answered

Marked out of 1

Flag question

**What are the contents of BX after this program has been run:**

Memory location	Contents	Memory location	Contents
5514	24	F23F	24
5513	D8	F23E	D8
5512	00	F23D	24
5511	21	F23C	D8
5510	00	F23B	00
550F	F2	F23A	21
550E	39	F239	00

Select one:

- a. -0010h
- b. D800h
- c. 5500h
- d. 5511h
- e. FFF0h
- f. 0010h

## Question 135

Not yet answered

Marked out of 1

 Flag question

When should we uses pointers?

Select one:

- a. When passing a large sized structure or data type
- b. All of the answers
- c. When you are trying to pass by reference
- d. None of the answers
- e. Access certain address in memory

### Question 136

Not yet answered

Marked out of 1

 Flag question

What logical operation indicates the inputs have the same value?

Select one:

- a. XNORing
- b. ORing
- c. XORing
- d. ANDing

**Question 137**

Not yet answered

Marked out of 1

 Flag question

Rotating an 8-bit register right one time changes the value of the register by what?

Select one:

- a. Divide by 2
- b. Multiply by 4
- c. Is the same
- d. Zero
- e. Multiply by 2

**Question 138**

Not yet answered

Marked out of 1

 Flag question

The MicroChip Atmel AVR architecture is based on which of the following computer architecture(s)?

Select one:

- a. Von Neumann
- b. Harvard
- c. Yale
- d. all of the answers
- e. Stanford
- f. MIT
- g. None of the answers
- h. Berkley

### Question 139

Not yet answered

Marked out of 1

 Flag question

In the Propeller microcontroller, the command “`waitcnt(clkfreq*10 + cnt)`” would cause the processor to do which of the following?

Select one:

- a. to slow down 10 times
- b. Create 10 millisecond delay
- c. Create 10 microsecond delay
- d. Create 10 second delay
- e. Set the processor speed to 10 MHz
- f. to speed up 10 times

## Question 140

Not yet answered

Marked out of 1

 Flag question

**How many nibbles are in single precision IEEE floating point format numbers (32bit)?**

Select one:

- a. 32
- b. 4
- c. 10
- d. 8
- e. 16
- f. 64
- g. 2
- h. 20
- i. 80

## Question 119

Not yet answered

Marked out of 1

 Flag question

What is the definition of PWM?

Select one:

- a. all of the answers
- b. Primary Working Microcontroller
- c. None of the answers
- d. Pulse Write Mode
- e. Pulse Width Mode
- f. Pulse Width Modulation
- g. Preparatory Write Mode

**Question 120**

Not yet answered

Marked out of 1

 Flag question

Rotating an 8-bit register left seven time changes the value of the register by what?

Select one:

- a. Is the same
- b. Zero
- c. Multiply by 4
- d. Divide by 2
- e. Multiply by 2

### Question 121

Not yet answered

Marked out of 1

 Flag question

**In the MicroChip PIC with TRISD = 0b01111111, what is the configuration of the Port D?**

Select one:

- a. Bit 7 of port D is set to input
- b. Port D is set as an input port
- c. Port D is set as an output port
- d. Port D is set to 127 decimal
- e. Bit 7 of port D is set to output

## Question 122

Not yet answered

Marked out of 1

 Flag question

Ladder Logic is used in \_\_\_\_\_

Select one:

- a. Power Logic Controllers
- b. ALUs
- c. BIUs
- d. CPUs
- e. PLCs

### Question 123

Not yet answered

Marked out of 1

 Flag question

In the MicroChip PIC with TRISD = 0b10000000, what is the configuration of the Port D?

Select one:

- a. Port D is set as an input port
- b. Port D is set to 127 decimal
- c. Port D is set as an output port
- d. Bit 7 of port D is set to output
- e. Bit 7 of port D is set to input

## Question 124

Not yet answered

Marked out of 1

 Flag question

The acronym PLC, is defined as which of the following?

Select one:

- a. Parallel Logic Controller
- b. Power Logic Controller
- c. Programmable Logic Controller
- d. Parallel Low Computation
- e. Power Limit Controller

## Question 125

Not yet answered

Marked out of 1

 Flag question

What is the resolution of an 8bit ADC operating at 5 volts?

Select one:

- a. 20 mV
- b. 20 uV
- c. 0 V
- d. 20 nV
- e. None of the answers
- f. 5 V

**Question 126**

Not yet answered

Marked out of 1

 Flag question

The doubling of performance and halving of the cost in the electronics industry is which of the following?

Select one:

- a. Ohm's Law
- b. None of the answers
- c. Microsoft's Law
- d. Heedley's Law
- e. Faraday's Law
- f. Moore's Law
- g. Intel's Law

## Question 127

Not yet answered

Marked out of 1

 Flag question

**AND'ing 10Hex and 2FHex will result in which of the following Hex numbers?**

Select one:

- a. 3F
- b. 45
- c. 16
- d. 0
- e. 63

## Question 128

Not yet answered

Marked out of 1

 Flag question

What is the definition of DAC?

Select one:

- - 
  - 
  - 
  -
- a. Data Asynchronous Converter
- b. all of the answers
- c. Data Analog Converter
- d. Digital Analog Converter
- e. None of the answers

## Question 110

Not yet answered

Marked out of 1

 Flag question

A “pull up” resistor is used in digital circuits to do what?

Select one:

- a. To keep the signal “tied” high until the line is active (goes low)
- b. To keep the voltage at 1 Volt
- c. To make sure the digital line is always high
- d. To keep the signal line “tied” low until the line is active (goes high)
- e. To keep the voltage at 0 Volts

### Question 111

Not yet answered

Marked out of 1

 Flag question

What is the advantage of Programmed IO over Memory Mapped IO?

Select one:

- a. reduces the instructions required by the processor to communicate with IO
- b. can handle more IO
- c. All of the answers
- d. allows the processor to communicate with peripherals that have different data rates
- e. None of the answers
- f. is more efficient programming
- g. is more efficient use of memory

## Question 112

Not yet answered

Marked out of 1

 Flag question

**Which command would you use to execute another core in the propeller microcontroller?**

Select one:

- a. **PUB**
- b. **EXE Core**
- c. **Cognew**
- d. **Method**
- e. **VAR**

### Question 113

Not yet answered

Marked out of 1

 Flag question

Shifting an 8-bit register left one time changes the value of the register by what?

Select one:

- a. Zero
- b. Multiply by 4
- c. Is the same
- d. Multiply by 2
- e. Divide by 2

## Question 114

Not yet answered

Marked out of 1

 Flag question

If CX is 0003, what will CX be after a “LOOPNZ” instruction?

Select one:

- a. 0003
- b. 0002
- c. 0000
- d. FFFF
- e. BX
- f. 0001
- g. DX
- h. AX

## Question 115

Not yet answered

Marked out of 1

 Flag question

**What is the hexadecimal encoding for loading AX with a word (value) from memory location 0820h?**

Select one:

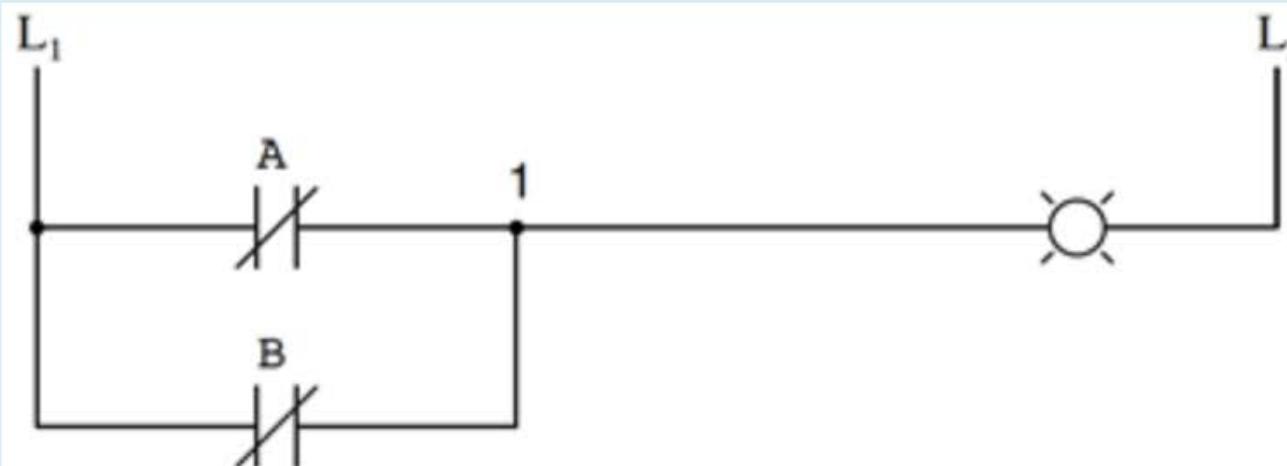
- a. A12008
- b. 8A262008
- c. A10820
- d. A00820
- e. 8B162008

### Question 116

Not yet answered

Marked out of 1

 Flag question



The Ladder Logic diagram would represent which of the following?

Select one:

- a. **NAND**
- b. **CLOSED CIRCUIT**
- c. **XOR**
- d. **XNOR**
- e. **OPEN CIRCUIT**
- f. **NOR**
- g. **OR**
- h. **AND**

## Question 117

Not yet answered

Marked out of 1

 Flag question

Which of the following would be used to set the TRISA register to control the direction of the MicroChip PIC Port to input?

Select one:

- a. 1
- b. =output
- c. 0
- d. DIRA := 0
- e. =/input

## Question 118

Not yet answered

Marked out of 1

 Flag question

What are the contents of BX after this program?

Program	Memory location	Contents
MOV BX, 2024h	2026	F2
MOV CX, 4eh	2025	59
DEC BX	2024	39
AND CX, [BX]	2023	4E

Select one:

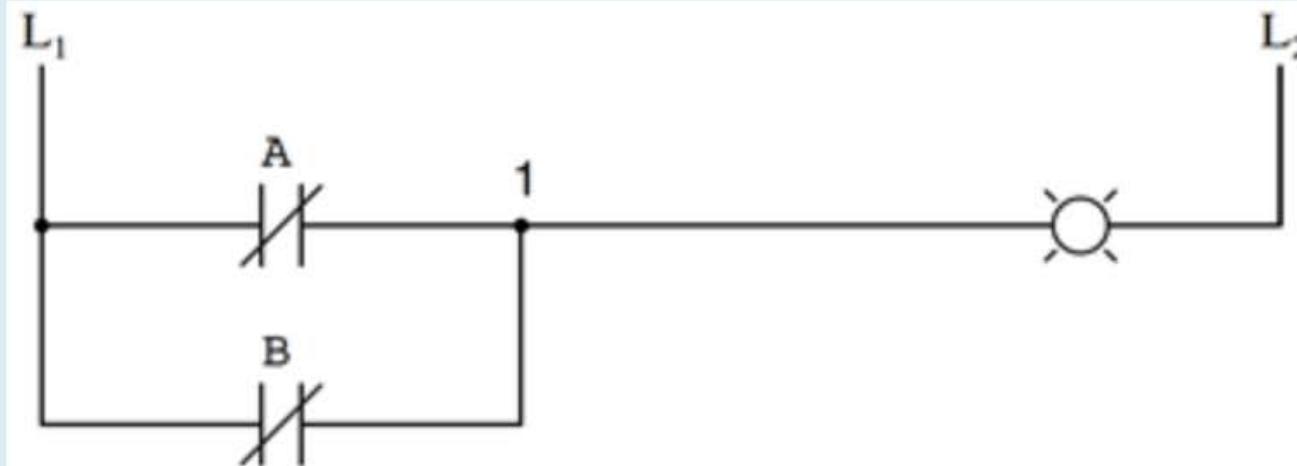
- a. F239h
- b. 394Eh
- c. 2420h
- d. 2023h
- e. 2024h

## Question 116

Answer saved

Marked out of 1

 Flag question



The Ladder Logic diagram would represent which of the following?

Select one:

- a. **NAND**
- b. **CLOSED CIRCUIT**
- c. **XOR**
- d. **XNOR**
- e. **OPEN CIRCUIT**
- f. **NOR**
- g. **OR**
- h. **AND**

## Question 100

Not yet answered

Marked out of 1

 Flag question

In the MicroChip PIC with TRISD = 0b00001111 and LATD = 0xAA, what value will be on Port D and shown on the LEDs?

Select one:

- a. **0A**
- b. **AA**
- c. **F0**
- d. **A0**
- e. **0F**

## Question 101

Not yet answered

Marked out of 1

 Flag question

### What is the acronym RISC stand for?

Select one:

- a. Right instruction set for computers
- b. Ready instruction set for computers
- c. Reduce instruction set computer
- d. Real instruction set complex
- e. Realtime instruction set computer

## Question 102

Not yet answered

Marked out of 1

 Flag question

**How many cores does the propeller microcontroller have?**

Select one:

- a. 8
- b. 4
- c. 32
- d. 2
- e. 16

### Question 103

Not yet answered

Marked out of 1

 Flag question

In the x86 which register in the segmented group is used for code?

Select one:

- a. All of the answers
- b. SI
- c. IP
- d. CX
- e. CS
- f. None of the answers
- g. BX
- h. AX
- i. SS
- j. DX
- k. DS
- l. SP
- m. DI

## Question 104

Not yet answered

Marked out of 1

 Flag question

What is the advantage of Memory Mapped IO over Programmed IO?

Select one:

- a. All of the answers
- b. reduces the instructions required by the processor to communicate with IO
- c. allows the processor to communicate with peripherals that have different data rates
- d. is more efficient programming
- e. None of the answers
- f. is more efficient use of memory
- g. can handle more IO

## Question 105

Not yet answered

Marked out of 1

 Flag question

What logical operation clears a bit?

Select one:

- a. ANDing
- b. ORing
- c. XORing
- d. XNORing

## Question 106

Not yet answered

Marked out of 1

 Flag question

What is an infinite loop?

Select one:

- a. A loop that runs till a given condition
- b. A loop that runs once
- c. A loop that runs till done
- d. A loop that runs till an input is given
- e. A loop that runs forever

## Question 107

Not yet answered

Marked out of 1

 Flag question

What logical operation toggles a bit?

Select one:

- a. XNORing
- b. ANDing
- c. ORing
- d. XORing

## Question 108

Not yet answered

Marked out of 1

 Flag question

How many bytes are in a “char”?

Select one:

- a. 1 byte
- b. 2 byte
- c. 4 byte
- d. None of the answers

## Question 109

Not yet answered

Marked out of 1

 Flag question

Which of the following is a setback(s) of the Arduino platform?

Select one:

- a. all of the answers
- b. None of the answers
- c. Large Open Source Community
- d. Scaling to larger design
- e. Rapid prototyping and ready to use

## Question 90

Not yet answered

Marked out of 1

 Flag question

**What is -34 decimal in 2's complement (8 bits)?**

Select one:

- a. 0010 0010
- b. 1110 0111
- c. 1101 1110
- d. 0001 1001
- e. 1011 0100

## Question 91

Not yet answered

Marked out of 1

 Flag question

Rotating an 8-bit register left eight times changes the value of the register by what?

Select one:

- - 
  - 
  - 
  -
- a. Divide by 2
- b. Is the same
- c. Multiply by 2
- d. Multiply by 4
- e. Zero

## Question 92

Not yet answered

Marked out of 1

 Flag question

**How many nibbles are in extended precision IEEE floating point format numbers (80bit)?**

Select one:

- a. 16
- b. 80
- c. 10
- d. 20
- e. 2
- f. 32
- g. 4
- h. 64
- i. 8

### Question 93

Not yet answered

Marked out of 1

 Flag question

In the MicroChip PIC with TRISD = 0b11110000 and LATD = 0xAA, what value will be on Port D and shown on the LEDs?

Select one:

- a. 0F
- b. A0
- c. F0
- d. AA
- e. 0A

## Question 94

Not yet answered

Marked out of 1

 Flag question

x86, an INT 15 service 86, will cause the processor perform which of the following?

Select one:

- - 
  - 
  - 
  - 
  - 
  - 
  -
- a. prints a string to the screen
- b. takes in keyboard input
- c. None of the answers
- d. terminates the program
- e. waits for a key to be pressed on the keyboard
- f. All of the answers
- g. terminates the program with error

## Question 95

Not yet answered

Marked out of 1

 Flag question

The letters “NC” labeled on relays and PLCs means which of the following?

Select one:

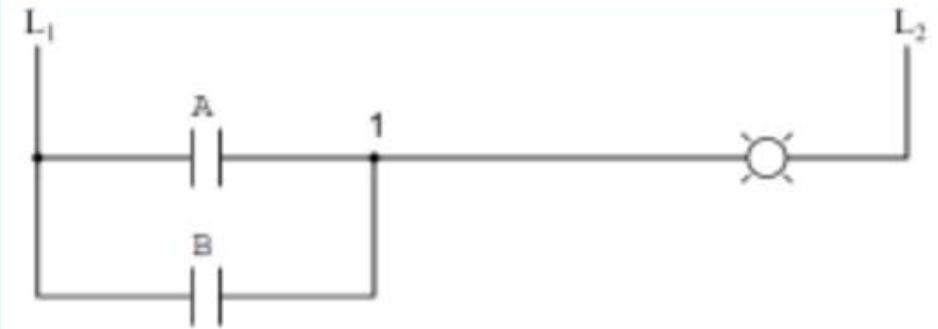
- a. Normally Closed
- b. Normal Code
- c. Not a Computer
- d. No Code
- e. Not Closed

### Question 96

Not yet answered

Marked out of 1

 Flag question



The Ladder Logic diagram would represent which of the following?

Select one:

- a. AND
- b. OR
- c. NAND
- d. OPEN CIRCUIT
- e. XOR
- f. CLOSED CIRCUIT
- g. NOR
- h. XNOR

## Question 97

Not yet answered

Marked out of 1

 Flag question

In the MicroChip PIC with a bit mask = 0xFF, what bit mask operation would be used to configure Port D to input?

Select one:

- a. ORing
- b. ANDing
- c. XORing
- d. XNORing

## Question 98

Not yet answered

Marked out of 1

 Flag question

What library call would be used for I2C in Arduino?

Select one:

- a. I2C library
- b. None of the answers
- c. Protocols Library
- d. Wire Library
- e. All of the answers
- f. Communication Library

## Question 99

Not yet answered

Marked out of 1

 Flag question

Which of the following Debug commands would set a break point at memory location 010C?

Select one:

- a. **G = 010C**
- b. **B = 100 10C**
- c. **G [010C]**
- d. **B 0C10**
- e. **G = 100 10C**
- f. **G 010C**

## Question 70

Not yet answered

Marked out of 1

 Flag question

What is polling?

Select one:

- a. None of the answers
- b. All of the answers
- c. When a program determines if the IO is a input or output
- d. When a program asks the IO to give it information
- e. When the program actively sampling the status of a IO

## Question 71

Not yet answered

Marked out of 1

 Flag question

### What is the advantage of Assembly Language over C Language?

Select one:

- a. All the answers
- b. Hand assembly coding is much faster in C
- c. C does not need a compiler to be assembled in to an executable program.
- d. Assembly Language creates much faster executable code
- e. C is transportable to other microprocessor architectures

## Question 72

Not yet answered

Marked out of 1

 Flag question

**Compare and contrast the Harvard architecture with the von Neumann architecture.**

Select one:

- a. The von Neumann architecture uses separate program and data memory.
- b. The Harvard architecture uses big endian addressing.
- c. The von Neumann architecture uses big endian addressing.
- d. The Harvard type uses a separate program and data memory
- e. The Harvard architecture uses programmed I/O.

### Question 73

Not yet answered

Marked out of 1

 Flag question

On the Analog Discovery, what is the definition of AWG?

Select one:

- a. All of the answers
- b. None of the answers
- c. Arbitrary Wave Generator
- d. Auto Write Generator
- e. Arbitrary Write Generator
- f. American Wire Gauge

## Question 74

Not yet answered

Marked out of 1

 Flag question

What is an interrupt?

Select one:

- a. A signal to the processor emitted by hardware or software indicating an event
- b. When a program determines if the IO is an input or output
- c. When a program asks the IO to give it information
- d. All of the answers
- e. None of the answers
- f. When the program is actively sampling the status of a IO

## Question 75

Not yet answered

Marked out of 1

 Flag question

x86, an INT 21 service 9, will cause the processor perform which of the following?

Select one:

- - 
  - 
  - 
  - 
  - 
  - 
  - 
  -
- a. terminates the program with error
- b. prints a string to the screen
- c. terminates the program
- d. All of the answers
- e. None of the answers
- f. waits for a key to be pressed on the keyboard
- g. takes in keyboard input

## Question 76

Not yet answered

Marked out of 1

 Flag question

36 decimal would be what value in hexadecimal?

Select one:

a. 36

b. 24

c. OC

d. 18

e. 12

## Question 77

Not yet answered

Marked out of 1

 Flag question

What is the hexadecimal encoding for "JGE" for a jump back 12 bytes?

Select one:

- a. **7DF2**
- b. **7DFA**
- c. **7DF4**
- d. **7DF6**
- e. **7DF4**

## Question 78

Not yet answered

Marked out of 1

 Flag question

Which of the following is(are) benefit(s) of the Arduino platform?

Select one:

- a. Large Open Source Community
- b. Easy to implement functions
- c. None of the answers
- d. Rapid prototyping and ready to use
- e. all of the answers

## Question 79

Not yet answered

Marked out of 1

 Flag question

What is 152.1875 Converted to double precision FP?

Select one:

- a. 41 1C 00 00 00 00 00 00
- b. C2 C0 8A 3D 00 00 00 00
- c. 3D A0 00 00 00 00 00 00
- d. 40 63 06 00 00 00 00 00
- e. c1 1C 80 00 00 00 00 00

## Question 60

Not yet answered

Marked out of 1

 Flag question

The instruction **MOV CX, [SI]** is what addressing mode?

Select one:

- a. Immediate
- b. Scaled Index
- c. Register
- d. Register Indirect
- e. Direct

## Question 61

Not yet answered

Marked out of 1

 Flag question

The Intel x86 architecture is based on which of the following computer architecture(s)?

Select one:

- a. Stanford
- b. Berkley
- c. None of the answers
- d. Harvard
- e. Von Neumann
- f. Yale
- g. MIT

## Question 62

Not yet answered

Marked out of 1

 Flag question

### Convert 129.C hexadecimal into decimal

Select one:

- a. 281.12
- b. 129.C
- c. 129.12
- d. 81.75
- e. 297.75

**Question 63**

Not yet answered

Marked out of 1

 Flag question

In the MicroChip PIC what bit mask would need to be applied to configure Port D to input? Assume ORing bit operation is applied.

Select one:

- a. 0x0F
- b. 0xF0
- c. 0xA0
- d. 0x0A
- e. None of the answers
- f. 0xFF

## Question 64

Not yet answered

Marked out of 1

 Flag question

**What is 458752.00 Converted to double precision FP?**

Select one:

- a. 40 63 06 00 00 00 00 00
- b. 3D A0 00 00 00 00 00 00
- c. 41 1C 00 00 00 00 00 00
- d. c2 C0 8A 3D 00 00 00 00
- e. c1 1C 80 00 00 00 00 00

## Question 65

Not yet answered

Marked out of 1

 Flag question

In the MicroChip PIC with a bit mask = 0xFF, what bit mask operation would be applied to LATD to switch the LED output?

Select one:

- a. XORing
- b. ORing
- c. ANDing
- d. XNORing

## Question 66

Not yet answered

Marked out of 1

 Flag question

### What is the RS232C specification voltage range for Logic 0 output?

Select one:

- a. -12v
- b. -3v to -25v
- c. +5 to +15v
- d. -5v to -15v
- e. +3v to +25v

## Question 67

Not yet answered

Marked out of 1

 Flag question

On the Analog Discovery, what tool is used to see the data from the UART?

Select one:

- a. All of the answers
- b. Scope
- c. Network
- d. None of the answers
- e. Logic
- f. Logger

## Question 68

Not yet answered

Marked out of 1

 Flag question

Which of the following is(are) benefit(s) of the Arduino platform?

Select one:

- a. being able to scale up
- b. cost
- c. all of the answers
- d. None of the answers
- e. Rapid prototyping and ready to use

**Question 69**

Not yet answered

Marked out of 1

 Flag question

In the MicroChip PIC what bit mask would need to be applied to configure bit 4 of Port D to input? Assume ORing bit operation is applied.

Select one:

- a. 0x08
- b. 0xFF
- c. 0xA0
- d. 0x0A
- e. 0xA8
- f. None of the answers

## Question 50

Not yet answered

Marked out of 1

 Flag question

If the SP is F00F, what is the SP value after a “POP CX” instruction?

Select one:

- a. F00D
- b. F00C
- c. F011
- d. F010
- e. F012

## Question 51

Not yet answered

Marked out of 1

 Flag question

A microprocessor with a 33-bit address bus could access how much memory?

Select one:

- a. 64 GB
- b. 8 GB
- c. 2 GB
- d. 128 MB
- e. 2 MB
- f. 64 MB

### Question 52

Not yet answered

Marked out of 1

 Flag question

What logical operation sets a bit?

Select one:

- a. XNORing
- b. XORing
- c. ANDing
- d. ORing

### Question 53

Not yet answered

Marked out of 1

 Flag question

x86, an INT 20, will cause the processor perform which of the following?

Select one:

- a. None of the answers
- b. waits for a key to be pressed on the keyboard
- c. All of the answers
- d. takes in keyboard input
- e. terminates the program
- f. prints a string to the screen
- g. terminates the program with error

**Question 54**

Not yet answered

Marked out of 1

 Flag question

In the x86 which register in the pointer group is used for the data index?

Select one:

- a. BX
- b. IP
- c. None of the answers
- d. DS
- e. CS
- f. DI
- g. All of the answers
- h. AX
- i. SI
- j. SS
- k. CX
- l. DX
- m. SP

## Question 55

Not yet answered

Marked out of 1

 Flag question

How many bytes are in an “int”?

Select one:

- a. None of the answers
- b. 4 byte
- c. a or b
- d. 2 byte

## Question 56

Not yet answered

Marked out of 1

 Flag question

A “NOP” instruction in an x86 program will:

Select one:

- - 
  - 
  - 
  -
- a. Clear the Overflow flag
- b. Perform a No Operation
- c. Set a Normal Operating Point
- d. Reset the IP register
- e. Exit the program

## Question 57

Not yet answered

Marked out of 1

 Flag question

**The binary number, 1000 0101, represents what values as an unsigned binary, 8-bit signed binary, odd parity ASCII, and BCD number (in that order)?**

Select one:

- a. ENQ, 133, -123, 85
- b. 85, 133, ENQ, -123
- c. -123, 133, 85, ENQ
- d. 133, -123, ENQ, 85

## Question 58

Not yet answered

Marked out of 1

 Flag question

Which of the following is(are) setback(s) of the Arduino platform?

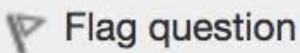
Select one:

- a. Cost
- b. all of the answers
- c. Scaling to larger design
- d. Structure of functions may not be as efficient
- e. None of the answers

**Question 59**

Not yet answered

Marked out of 1



x86, an INT 21 service 4C, will cause the processor perform which of the following?

Select one:

- a. All of the answers
- b. waits for a key to be pressed on the keyboard
- c. terminates the program
- d. takes in keyboard input
- e. prints a string to the screen
- f. None of the answers
- g. terminates the program with error

## Question 50

Not yet answered

Marked out of 1

 Flag question

If the SP is F00F, what is the SP value after a “POP CX” instruction?

Select one:

- a. F00D
- b. F00C
- c. F011
- d. F010
- e. F012

## Question 51

Not yet answered

Marked out of 1

 Flag question

A microprocessor with a 33-bit address bus could access how much memory?

Select one:

- a. 64 GB
- b. 8 GB
- c. 2 GB
- d. 128 MB
- e. 2 MB
- f. 64 MB

## Question 52

Not yet answered

Marked out of 1

 Flag question

What logical operation sets a bit?

Select one:

- a. XNORing
- b. XORing
- c. ANDing
- d. ORing

### Question 53

Not yet answered

Marked out of 1

 Flag question

x86, an INT 20, will cause the processor perform which of the following?

Select one:

- a. None of the answers
- b. waits for a key to be pressed on the keyboard
- c. All of the answers
- d. takes in keyboard input
- e. terminates the program
- f. prints a string to the screen
- g. terminates the program with error

**Question 54**

Not yet answered

Marked out of 1

 Flag question

In the x86 which register in the pointer group is used for the data index?

Select one:

- a. BX
- b. IP
- c. None of the answers
- d. DS
- e. CS
- f. DI
- g. All of the answers
- h. AX
- i. SI
- j. SS
- k. CX
- l. DX
- m. SP

## Question 55

Not yet answered

Marked out of 1

 Flag question

How many bytes are in an “int”?

Select one:

- a. None of the answers
- b. 4 byte
- c. a or b
- d. 2 byte

## Question 56

Not yet answered

Marked out of 1

 Flag question

A “NOP” instruction in an x86 program will:

Select one:

- - 
  - 
  - 
  -
- a. Clear the Overflow flag
- b. Perform a No Operation
- c. Set a Normal Operating Point
- d. Reset the IP register
- e. Exit the program

## Question 57

Not yet answered

Marked out of 1

 Flag question

**The binary number, 1000 0101, represents what values as an unsigned binary, 8-bit signed binary, odd parity ASCII, and BCD number (in that order)?**

Select one:

- a. ENQ, 133, -123, 85
- b. 85, 133, ENQ, -123
- c. -123, 133, 85, ENQ
- d. 133, -123, ENQ, 85

## Question 58

Not yet answered

Marked out of 1

 Flag question

Which of the following is(are) setback(s) of the Arduino platform?

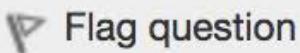
Select one:

- a. Cost
- b. all of the answers
- c. Scaling to larger design
- d. Structure of functions may not be as efficient
- e. None of the answers

**Question 59**

Not yet answered

Marked out of 1



x86, an INT 21 service 4C, will cause the processor perform which of the following?

Select one:

- a. All of the answers
- b. waits for a key to be pressed on the keyboard
- c. terminates the program
- d. takes in keyboard input
- e. prints a string to the screen
- f. None of the answers
- g. terminates the program with error

## Question 40

Not yet answered

Marked out of 1

 Flag question

### What is Programmed IO?

Select one:

- a. Is a method of transferring data from the processor and a peripheral like a printer port
- b. None of the answers
- c. All of the answers
- d. Is used where each input and output can be set
- e. Communication Library
- f. Is a method of transferring data by directly accessing memory with register to memory or memory to register instructions

### Question 41

Not yet answered

Marked out of 1

 Flag question

In the x86 which register in the segmented group is used for stack operations?

Select one:

- a. All of the answers
- b. IP
- c. SP
- d. AX
- e. DS
- f. None of the answers
- g. DI
- h. SI
- i. BX
- j. SS
- k. CX
- l. CS
- m. DX

## Question 42

Not yet answered

Marked out of 1

 Flag question

The instruction **MOV CX, SI** is what addressing mode?

Select one:

- a. Direct
- b. Scaled Index
- c. Register
- d. Register Indirect
- e. Immediate

Question 43

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Not yet answered

Marked out of 1

Flag question

In the 86 which register is used most often and has the one less byte in its machine code?

Select one:

- a. CS
- b. DS
- c. All of the answers
- d. SI
- e. AX
- f. DX
- g. SS
- h. CX
- i. None of the answers
- j. DI
- k. BX

## Question 44

Not yet answered

Marked out of 1

 Flag question

All of the following are true for pointers except for?

Select one:

- a. All of the answers
- b. A pointer is a variable which contains the address in memory of another variable
- c. Are used when passing by reference
- d. Are used when passing by value
- e. Declaring a pointer variable should look like the following: "int \* p";

### Question 45

Not yet answered

Marked out of 1

 Flag question

What is the resolution of a 10bit ADC operating at 5 volts?

Select one:

- a. 5 mV
- b. None of the answers
- c. 0 V
- d. 5 uV
- e. 5 V
- f. 5 nV

### Question 46

Not yet answered

Marked out of 1

 Flag question

**The ASCII codes for space, space, carriage return, line feed, end of string in hexadecimal are:**

Select one:

- a. 32, 32, 13, 10, 36
- b. SP, SP, CR, LF, \$
- c. 20, 20, 0D, 0A 24
- d. 0D, 30, 20, 20, 24
- e. 20, 20, D0, A0 24

## Question 47

Not yet answered

Marked out of 1

 Flag question

What is the voltage for IO output for a “ON” signal?

Select one:

- - 
  - 
  - 
  - 
  -
- a. Between 0V to 5V
- b. Between 2.5V to 3.3V
- c. None of the answers
- d. 2.5V
- e. Between 2.5V to 5V
- f. all of the answers

## Question 48

Not yet answered

Marked out of 1

 Flag question

The instruction **MOV CX, 4DAD** is what addressing mode?

Select one:

- a. Register Indirect
- b. Direct
- c. Register
- d. Immediate
- e. Scaled Index

## Question 49

Not yet answered

Marked out of 1

 Flag question

### What is 152.1875 Converted to single precision FP?

Select one:

- a. 41 1C 00 00
- b. C1 1C 80 00
- C. 3D A0 00 00
- d. 43 18 30 00
- e. 40 63 06 00
- f. C2 C0 8A 3D

### Question 30

Not yet answered

Marked out of 1

 Flag question

**In the MicroChip PIC with TRISD = 0b11111111, what is the configuration of the Port D?**

Select one:

- a. Bit 8 of port D is set to input
- b. Port D is set as an output port
- c. Port D is set as an input port
- d. Bit 8 of port D is set to output
- e. Port D is set to 127 decimal

### Question 31

Not yet answered

Marked out of 1

 Flag question

In x86 architecture, ALU stands for which of the following?

Select one:

- a. **Arithmetic Logic Unit**
- b. **Address Logic Unit**
- c. **Arithmetic Lining Unit**
- d. **All Logic Unit**
- e. **A Logic User**

### Question 32

Not yet answered

Marked out of 1

 Flag question

**AND'ing 1FH and 02H will result in which of the following?**

Select one:

- a. 16
- b. 0
- c. 3F
- d. 63
- e. 02

### Question 33

Not yet answered

Marked out of 1

 Flag question

How many address lines would be required to address 64 MB directly?

Select one:

- a. 128
- b. 26
- c. 127
- d. 24
- e. 27
- f. 64
- g. 20

## Question 34

Not yet answered

Marked out of 1

 Flag question

**What is the hexadecimal encoding for adding BX with CX and storing the result in BX?**

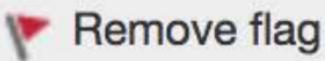
Select one:

- a. 01D8 or 02D9
- b. 01DA or 29DA
- c. 03D9 or 03CB
- d. DA29 or DA01
- e. 01CB or 03D9

**Question 35**

Not yet answered

Marked out of 1



What is the voltage for IO output for an “OFF” signal?

Select one:

- a. Between 0V to 5V
- b. Around 1V
- c. Between 2.5V to 3.3V
- d. None of the answers
- e. all of the answers
- f. Between 3.3V to 5V

### Question 36

Not yet answered

Marked out of 1

 Flag question

What is the definition of I2C?

Select one:

- - 
  - 
  - 
  - 
  - 
  - 
  -
- a. Inter Integrated Communication Protocol
- b. None of the answers
- c. Input to Computer Protocol
- d. Interface to Computer Protocol
- e. all of the answers
- f. Inter Integrated Circuit Protocol

**Question 37**

Not yet answered

Marked out of 1

 Flag question

Shifting an 8-bit register right one time changes the value of the register by what?

Select one:

- - 
  - 
  - 
  -
- a. Multiply by 2
- b. Zero
- c. Multiply by 4
- d. Divide by 2
- e. Is the same

**Question 38**

Not yet answered

Marked out of 1

 Flag question

On the Analog Discovery, to examine the Voltages from a I2C bus what tool would you use?

Select one:

- a. Scope
- b. Logic
- c. All of the answers
- d. Network
- e. None of the answers
- f. Logger

**Question 39**

Not yet answered

Marked out of 1

 Flag question

In the x86 which register is used for current instruction location?

Select one:

- a. CX
- b. None of the answers
- c. DI
- d. DS
- e. SI
- f. SS
- g. DX
- h. All of the answers
- i. BX
- j. AX
- k. IP
- l. CS
- m. SP

## Question 20

Not yet answered

Marked out of 1

 Flag question

In adding  $3 + 3$  through a 4 bit integer unit. The state of the OF and CF flags after the add instruction would be:

Select one:

- a. OF = 1, CF = 1
- b. OF = 0, CF = 0, ZF = 0
- c. OF = 0, CF = 0
- d. OF = 1, CF = 0
- e. OF = 0, CF = 1

**Question 21**

Not yet answered

Marked out of 1

 Flag question

What is the voltage for IO output for a “ON” signal?

Select one:

- a. 2.5V
- b. None of the answers
- c. Between 2.5V to 3.3V
- d. Between 0V to 5V
- e. all of the answers
- f. Between 3.3V to 5V

## Question 22

Not yet answered

Marked out of 1

 Flag question

What is an example of a pre-compiler statement?

Select one:

- a. #define
- b. A Macro
- c. #include
- d. All of the answers

**Question 23**

Not yet answered

Marked out of 1

 Flag question

What would the advantage be of using interrupt driven IO over polling?

Select one:

- a. polling allows for checking multiple inputs
- b. All of the answers
- c. interrupts would allow the processor to perform other operations
- d. None of the answers
- e. polling is faster
- f. assembly instructions are faster than C language code.

## Question 24

Not yet answered

Marked out of 1

 Flag question

### What are the TTL logic level voltages for a Logic 0 and Logic 1?

Select one:

- a. +3v to +25v
- b. -3v to -25v
- c. 0v to +5v
- d. -5v to +5v
- e. +5 to +15v
- f. -12v
- g. -5v to -15v
- h. -3v to -5v

## Question 25

Not yet answered

Marked out of 1

 Flag question

How many nibbles are in double precision IEEE floating point format numbers (64bit)?

Select one:

- a. 20
- b. 2
- c. 4
- d. 80
- e. 8
- f. 16
- g. 64
- h. 32
- i. 10

## Question 26

Not yet answered

Marked out of 1

 Flag question

What is the definition of ADC?

Select one:

- a. None of the answers
- b. Asynchronous Data Converter
- c. Analog Digital Converter
- d. all of the answers
- e. Analog Data Converter

## Question 27

Not yet answered

Marked out of 1

 Flag question

When should we use pre-compiler statements?

Select one:

- a. Remove blocks of code for debugging
- b. Create simple functions like `#define getmax(a,b) ((a)>(b)?(a):(b))`
- c. Create Constants
- d. All of the answers

## Question 28

Not yet answered

Marked out of 1

 Flag question

In the x86 lab part 3 Hello MASM program in the original code, what is the address of the byte used to start the number in the sequence “Hello World 0”?

Select one:

- a. **020E**
- b. **Hello**
- c. **0100**
- d. **0200**
- e. **message**

## Question 29

Not yet answered

Marked out of 1

 Flag question

x86, an INT 16 service 0, will cause the processor perform which of the following?

Select one:

- - 
  - 
  - 
  - 
  - 
  -
- a. takes in keyboard input
- b. terminates the program with error
- c. None of the answers
- d. All of the answers
- e. waits for a key to be pressed on the keyboard
- f. terminates the program
- g. prints a string to the screen

## Question 10

Not yet answered

Marked out of 1

 Flag question

### What is the advantage of C Language over Assembly Language?

Select one:

- a. The C Language does not need a compiler to be assembled into an executable program.
- b. All the answers
- c. C Lanuage programs are transportable to other processor architectures
- d. Assembly Language creates much faster executable code
- e. Hand assembly coding is much faster in C

### Question 11

Not yet answered

Marked out of 1

 Flag question

Shifting an 8-bit register right eight times changes the value of the register by what?

Select one:

- a. Zero
- b. Is the same
- c. Divide by 2
- d. Multiply by 2
- e. Multiply by 4

## Question 12

Not yet answered

Marked out of 1

 Flag question

On the Analog Discovery, to examine the data from a I2C bus what tool would you use?

Select one:

- a. All of the answers
- b. Logic
- c. Scope
- d. Logger
- e. Network
- f. None of the answers

### Question 13

Not yet answered

Marked out of 1

 Remove flag

Which of the following Debug instructions would be used to change the IP register to 0110?

Select one:

- a. **RBX = 100 110**
- b. **G=IP 0110**
- c. **RIP = [0110]**
- d. **RAX**
- e. **RIP**
- f. **RAX = 0110**

## Question 14

Not yet answered

Marked out of 1

 Flag question

**What is the RS232C specification voltage range for Logic 1 output?**

Select one:

- a. +5 to +15v
- b. -3v to -25v
- c. +3v to +25v
- d. -12v
- e. -5v to -15v

### Question 15

Not yet answered

Marked out of 1

 Remove flag

**In MASM, with a “MOV CX, 24” instruction, and a “LOOP” instruction, in decimal how many times will the program loop?**

Select one:

- a. 18
- b. 36
- c. 12
- d. 0C
- e. 24

## Question 16

Not yet answered

Marked out of 1

 Flag question

In adding  $10+6$  through a 4 bit integer unit. The state of the OF and CF flags after the add instruction would be:

Select one:

- a. **OF = 1, CF = 1**
- b. **OF = 0, CF = 0, ZF = 0**
- c. **OF = 0, CF = 1**
- d. **OF = 1, CF = 0**
- e. **OF = 0, CF = 0**

## Question 17

Not yet answered

Marked out of 1

 Flag question

Using microcontrollers, GPIO is defined as?

Select one:

- - 
  - 
  - 
  -
- a. Good Performance Input and Output
- b. None of the answers
- c. General Program Input and Output
- d. General Purpose Input Output
- e. all of the answers

### Question 18

Not yet answered

Marked out of 1

 Flag question



The Ladder Logic diagram would represent which of the following?

Select one:

- a. NOR
- b. AND
- c. XNOR
- d. CLOSED CIRCUIT
- e. NAND
- f. OR
- g. OPEN CIRCUIT
- h. XOR

### Question 19

Not yet answered

Marked out of 1

 Flag question

In the MicroChip PIC what bit mask would need to be applied to configure bit 4 and 2 of Port D to input? Assume ORing bit operation is applied.

Select one:

- a. 0xFF
- b. 0xA8
- c. 0x08
- d. 0x0A
- e. 0xA0
- f. None of the answers

### Question 1

Answer saved

Marked out of 1

 Flag question

MicroChip PIC architecture is based on which of the following computer architecture(s)?

Select one:

- a. None of the answers
- b. Berkley
- c. Yale
- d. MIT
- e. Harvard
- f. Von Neumann
- g. Stanford

## Question 2

Not yet answered

Marked out of 1

 Flag question

How many bytes are in an INT?

Select one:

- a. 2 or 4 bytes
- b. None of the answers
- c. 4 byte
- d. 2 byte

### Question 3

Not yet answered

Marked out of 1

 Flag question

#### What is Memory Mapped IO?

Select one:

- a. All of the answers
- b. Is used where each input and output can be set
- c. None of the answers
- d. Is a method of transferring data by directly accessing memory with register to memory or memory to register instructions
- e. Communication Library
- f. Is a method of transferring data from the processor and a peripheral like a printer port

**Question 4**

Not yet answered

Marked out of 1

 Flag question

x86, an INT 21 service A, will cause the processor perform which of the following?

Select one:

- - b. terminates the program
  - 
  - 
  - 
  - 
  - 
  - 
  -
- a. prints a string to the screen  
b. terminates the program  
c. None of the answers  
d. waits for a key to be pressed on the keyboard  
e. takes in keyboard input  
f. terminates the program with error  
g. All of the answers

### Question 5

Not yet answered

Marked out of 1

 Flag question

In the x86 which register is used for current stack location?

Select one:

- a. AX
- b. DI
- c. None of the answers
- d. SS
- e. CS
- f. DS
- g. BX
- h. SI
- i. IP
- j. CX
- k. SP
- l. DX
- m. All of the answers

## Question 6

Not yet answered

Marked out of 1

 Flag question

### What is the acronym CISC stand for?

Select one:

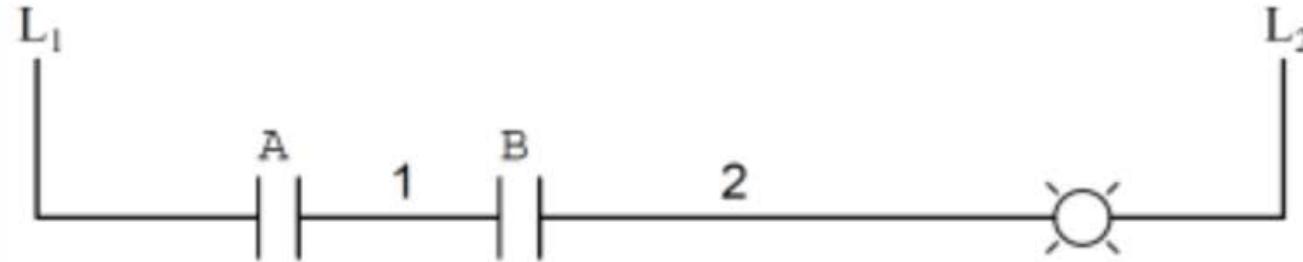
- a. Another name for CISCO, used in networking systems
- b. Current instruction set for computers
- c. Common instruction set computer
- d. Computer instruction set complex
- e. Complex instruction set computer

### Question 7

Not yet answered

Marked out of 1

 Flag question



The Ladder Logic diagram would represent which of the following?

Select one:

- a. NAND
- b. XOR
- c. OPEN CIRCUIT
- d. CLOSED CIRCUIT
- e. NOR
- f. AND
- g. XNOR
- h. OR

## Question 8

Not yet answered

Marked out of 1

 Flag question

**What command in DEBUG would be used to step through a program line by line?**

Select one:

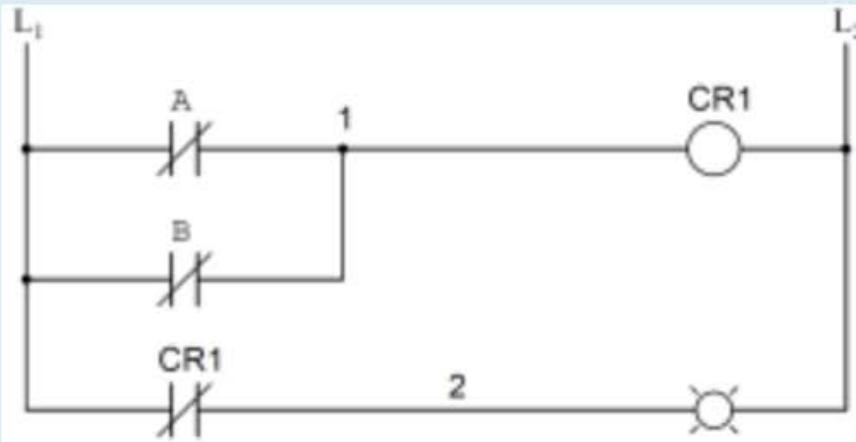
- a. R
- b. P
- c. T
- d. RIP
- e. S
- f. RCS

### Question 9

Not yet answered

Marked out of 1

 Remove flag



The Ladder Logic diagram would represent which of the following?

Select one:

- a. CLOSED CIRCUIT
- b. NAND
- c. OR
- d. AND
- e. XOR
- f. OPEN CIRCUIT
- g. NOR
- h. XNOR