Summary Exercise - Week 1

Due Oct 2 at 3:59pm   **Points** 35   **Questions** 35   **Available** until Oct 2 at 3:59pm

Time Limit 360 Minutes   **Allowed Attempts** 2

Instructions

There's a six-hour time limit.

Attempt History

	Attempt	Time	Score
KEPT	**Attempt 2**	29 minutes	35 out of 35
LATEST	**Attempt 2**	29 minutes	35 out of 35
	Attempt 1	53 minutes	29 out of 35

Score for this attempt: **35** out of 35
Submitted Oct 2 at 3:07pm
This attempt took 29 minutes.

Question 1   1 / 1 pts

Which of the following binary values is equivalent to hexadecimal 4A2B?

- ○ 0110 1011 0010 1001
- ● 0100 1010 0010 1011
- ○ 0100 1010 1010 1011
- ○ 0100 1010 0010 1101

Correct!

Question 2   1 / 1 pts

What is the value of the boolloean expression $X \lor (Y \land Z)$, when X=true, Y=false, and Z=false?

- ● True
- ○ False

Correct!

Question 3   1 / 1 pts

A word (on x86 systems) is 16 bits.

- ● True
- ○ False

Correct!

Question 4   1 / 1 pts

Three hexadecimal digits can be used to represent 12 binary bits.

- ● True
- ○ False

Correct!

Question 5   1 / 1 pts

The expression $X \land Y$ is true only when X and Y are both true.

- ● True
- ○ False

Correct!

Question 6   1 / 1 pts

Which of the following binary values is equivalent to hexadecimal 7CBE?

- ○ 0111 1100 1100 1110
- ○ 0111 1011 1011 1100

○ 0111 1101 1011 1110

◉ 0111 1100 1011 1110

○ True

◉ False

Question 7   1 / 1 pts

A quadword is 4 bytes.

○ True

◉ False

Question 8   1 / 1 pts

A signed integer stores the sign in the least significant bit (LSB).

○ True

◉ False

Question 9   1 / 1 pts

A doubleword (on x86 systems) is 32 bits.

◉ True

○ False

Question 10   1 / 1 pts

The ASCII codes for alphabetic letters are smaller than for decimal digits.

Question 11   1 / 1 pts

How many bits are used by Unicode characters in MS-Windows?

◉ 16

○ 7

○ 8

○ 24

Question 12   1 / 1 pts

The most significant bit in a binary byte is numbered bit 8.

○ True

◉ False

Question 13   1 / 1 pts

The expression $X \lor Y$ is only true when X and Y are both true.

○ True

◉ False

Question 14
1 / 1 pts

Which of the following best describes the relationship between assembly language and machine language?

- ○ many to one
- ○ one to many
- ○ many to many
- ◉ one to one

Correct!

Question 15
1 / 1 pts

Which list contains the correct hexadecimal translation (in order) of the following unsigned decimal integers? 33, 95, 257

- ○ 22, 5E, 11A
- ○ 6A, 5F, 101
- ○ 21, 62, 103
- ◉ 21, 5F, 101

Correct!

Question 16
1 / 1 pts

How much memory can be addressed in Real-address mode?

- ○ 640K
- ◉ 1MB
- ○ 4GB
- ○ 16MB

Correct!

Question 17
1 / 1 pts

Which flag is set when an unsigned value is too large to fit into a destination operand?

- ○ overflow
- ○ sign
- ○ auxiliary carry
- ◉ carry
- ○ checkered
- ○ red flag

Correct!

Question 18
1 / 1 pts

If a clock oscillates 10 billion times per second, what is the duration of a single clock cycle?

- ○ 1 jiffy
- ◉ 1.0×10^{-10} seconds
- ○ 1.0×10^{10} seconds
- ○ 1 nanosecond
- ○ 1.0×10^{-9} seconds
- ○ 1 sagon seconds

Correct!

Question 19
1 / 1 pts

What is the name of the lowest 8 bits of the EDX register?

- ○ DH

○ not listed

◉ DL

○ DX

Question 20
1 / 1 pts

Suppose that you are given the following program. What decimal value does the *AX* register hold when *someProcedure* is called??

```
.data
x   DWORD  153461
y   BYTE   37
z   BYTE   90


.code
main PROC
mov   AH, y
mov   AL, z
call  someProcedure
inc   EAX
mov   EBX, z
xor   EAX, EBX
exit
main ENDP
END MAIN
```

○ 9037

○ 3790

◉ 9562

○ 23077

Question 21
1 / 1 pts

Which internal bus uses binary signals to synchronize actions of all devices attached to the system bus?

○ I/O bus

○ address bus

○ cache bus

○ data bus

◉ control bus

○ city bus

Question 22
1 / 1 pts

During which phase of the instruction execution cycle is the program counter incremented?

○ operand fetch

○ decode

◉ fetch

○ execute

Question 23
1 / 1 pts

If you wanted to find out whether an integer contained an even number of 1 bits, which status flag would be useful?

○ carry

○ overflow

◉ parity

○ sign

Question 24

1 / 1 pts

High-speed memory that reduces the frequency of access by the CPU to conventional memory is called

- (•) cache memory
- ( ) local memory
- ( ) virtual memory
- ( ) system memory

Question 25

1 / 1 pts

The three types of buses connected to the CPU are:

- (•) data, address, control
- ( ) address, control, memory
- ( ) fetch-decode, control, execution
- ( ) data, system, address

Question 26

1 / 1 pts

The basic parts of an instruction, in order from left to right, are:

- ( ) comment, label, mnemonic, operand(s)
- ( ) mnemonic, operand(s), comment
- ( ) label, mnemonic, comment

- (•) label, mnemonic, operand(s), comment

Question 27

1 / 1 pts

Which utility program reads an assembly language source file and produces an object file?

- (•) assembler
- ( ) editor
- ( ) compiler
- ( ) loader
- ( ) detangler
- ( ) linker

Question 28

1 / 1 pts

Which letter choice shows the memory byte order, from low to high address, of the following data definition?

```
BigVal DWORD 12345678h
```

- ( ) 12h,34h,56h,78h
- ( ) 34h,12h,78h,56h

- (•) 78h,56h,34h,12h
- ( ) 56h, 78h,12h,34h

Question 29

1 / 1 pts

The following is a valid data definition statement:

```
str1 \
BYTE "This string is quite long!",0
```

- (•) True

○ False

Question 30 1 / 1 pts

Operands may be any of the following: (select all that apply)

☑ register name

☑ variable name (memory)

☑ constant or constant expression

☐ reserved word

Question 31 1 / 1 pts

Given the following array definition, which letter choice contains a valid constant declaration named ArrayCount that automatically calculates the number of elements in the array?

`newArray DWORD 10,20,30,40,50`

◉ ArrayCount = ($ - newArray) / 4

○ ArrayCount = (newArray - $) - 4

○ ArrayCount DWORD $ - newArray

○ ArrayCount = newArray - $

Question 32 1 / 1 pts

Which directive is used when defining 64-bit IEEE long reals?

○ REAL4

◉ REAL8

○ REAL64

○ REAL

Question 33 1 / 1 pts

The following sequence of statements is **invalid**:

```
.code
mov eax,edx
.data
myByte BYTE 10
.code
mov al,myByte
```

○ True

◉ False

Question 34 1 / 1 pts

Which of the following are valid data definition statements that create an array of unsigned bytes containing decimal 10, 20, and 30, named myArray?

○ BYTE myArray[3]: 10, 20,30

○ BYTE myArray 10, 20, 30

◉ myArray BYTE 10, 20, 30

○ myArray BYTE DUP (3) 10,20,30

Question 35 1 / 1 pts

The following are both valid data definition statements:

```
List1 BYTE 10,20
      BYTE 30,40
```

○ True

○ False

Quiz Score: **35** out of 35