

Summary Exercise - Week 3

Due Oct 20 at 11:59pm

Points 30

Questions 30

Available after Oct 13 at 12am

Time Limit 360 Minutes

Allowed Attempts 2

Attempt History

	Attempt	Time	Score
KEPT	Attempt 2	53 minutes	30 out of 30
LATEST	Attempt 2	53 minutes	30 out of 30
	Attempt 1	69 minutes	29.75 out of 30

Score for this attempt: **30** out of 30

Submitted Oct 16 at 11:09pm

This attempt took 53 minutes.

Question 1

1 / 1 pts

Adding 5 to 0FBh in an 8-bit register sets the Zero flag.

Correct!

☒ True

☐ False

Question 2

1 / 1 pts

Adding 0FFh and 05h in an 8-bit register sets the Overflow flag.

Correct!

☐ True

☒ False

Question 3

1 / 1 pts

A common programming error is to inadvertently initialize ECX to zero before beginning a loop (when using the LOOP instruction).

Correct!

☒ True

☐ False

Question 4

1 / 1 pts

If the LOOP instruction sets ECX to zero, a jump to the destination label **does** take place.

Correct!

☐ True

☒ False

Question 5

1 / 1 pts

The MOVSX instruction is only used with unsigned integers.

Correct!

☐ True

☒ False

Question 6

1 / 1 pts

Which of the following is **NOT** a valid MOV operation? Table 4-1 might be helpful. (check any/all that apply)

☐ MOV mem,reg

☐ MOV reg,reg

Correct!

☒ MOV imm,mem

☐ MOV reg,imm

Correct!

☒ MOV imm,imm

☐ MOV reg,mem

☐ MOV mem,imm

Correct!

☒ MOV mem,mem

Question 7

1 / 1 pts

Match the status flags with the correct description

Correct!

Carry flag

indicates unsigned integer overflow

Correct!

Overflow flag

indicates signed integer overflow

Correct!

Zero flag

indicates that an operation resulted in zero

Correct!

Sign flag

indicates that an operation resulted in a negative value

Correct!

Parity flag

indicates whether or not : ▼

Correct!

Auxiliary Carry flag

set when a 1 bit carries out ▼

Question 8

1 / 1 pts

Adding 7Fh and 05h in an 8-bit register sets the Overflow flag.

Correct!

☒ True

☐ False

Question 9

1 / 1 pts

The following instructions will set the Sign flag:

```
mov al,0FEh
sub al,2
```

Correct!

☒ True

☐ False

Question 10

1 / 1 pts

The INC instruction does not affect the Carry flag.

Correct!

☒ True

☐ False

Question 11

1 / 1 pts

The MOVSX instruction sign-extends an integer into a larger operand.

Correct!

☒ True

☐ False

Question 12

1 / 1 pts

The USES operator, coupled with the PROC directive, lets you list the names of all registers modified within a procedure.

Correct!

☒ True

☐ False

Question 13

1 / 1 pts

Which of the following is true about the PUSH instruction?

☐

It increments the stack pointer by 1 and copies the operand into the stack at the location pointed to by the stack pointer.

Correct!

☒

It decrements the stack pointer (by 2 or 4) and copies the operand into the stack at the location pointed to by the stack pointer.

☐

It increments the stack pointer (by 2 or 4) and copies the operand into the stack at the location pointed to by the stack pointer.

☐

It copies the operand into the stack at the location pointed to by the stack pointer, and then decrements the stack pointer (by 2 or 4).

Question 14

1 / 1 pts

Which register contains an integer before calling WriteDec?

☐ EXA

☐ EDX

☐ EWD

☒ EAX

☐ ECX

☐ EBX

Correct!

Section 5.3

Question 15

1 / 1 pts

Which library procedure reads a 32-bit signed decimal integer from standard input?

Correct!

ReadInt

Correct Answers

ReadInt

Table 5-1

Question 16

1 / 1 pts

By default, labels are visible only within the procedure in which they are declared.

Correct!

☒ True

☐ False

Question 17

1 / 1 pts

What will be the value of EAX when the following sequence of instructions has executed?

```
push 5
push 10
pop ebx
pop eax
```

Correct!

5

Correct Answers

5 (with margin: 0)

Question 18

1 / 1 pts

There are several important uses of runtime stacks in programs (select all that apply):

Correct!



When calling a subroutine, you pass input values called arguments by pushing them on the stack.

Correct!



A stack makes a convenient temporary save area for registers when they are used for more than one purpose. After they are modified, they can be restored to their original values.

Correct!



The stack provides temporary storage for local variables inside subroutines.

Correct!



When the CALL instruction executes, the CPU saves the current subroutine's return address on the stack.

Question 19

1 / 1 pts

Which library procedure returns the number of milliseconds elapsed since midnight?

Correct!

GetMseconds

Correct Answers

GetMseconds

Question 20

1 / 1 pts

What will be the value of EAX when the following sequence of instructions has executed?

```
push 5  
push 10  
push 20  
pop eax
```

Correct!

20

Correct Answers

20 (with margin: 0)

Question 21

1 / 1 pts

Which library procedure generates a 32-bit pseudorandom integer in a caller-specified range?

Correct!

RandomRange

Correct Answers

RandomRange

Table 5-1

Question 22

1 / 1 pts

Which library procedure displays the CPU flags and 32-bit registers?

Correct!

DumpRegs

Correct Answers

DumpRegs

Table 5-1

Question 23

1 / 1 pts

ESP always points to _____

- ☐ the next, empty, location above the stack.
- ☐ the next, empty, location below the stack.
- ☐ the beginning of the stack when your program first began.
- ☒ the last value to be added to, or pushed on, the top of stack.

Correct!

Question 24

1 / 1 pts

Which library procedure sets the Zero flag if the AL register contains the ASCII code for a decimal digit (0–9)?

Correct!

IsDigit

Correct Answers

IsDigit

Question 25

1 / 1 pts

A procedure is declared using the ____ and ____ directives.

- ☐ BEGIN and END
- ☒ PROC and ENDP
- ☐ START and END
- ☐ PROCEDURE and END

Correct!

Question 26

1 / 1 pts

The _____ procedure advances the cursor to the beginning of the next line in the console window.

Correct!

Crlf

Correct Answers

Crlf

Question 27

1 / 1 pts

Which of the following code sequences assigns the value 0x10 to EBX?
(select all that are correct)

Correct!

- ☐ mov edx, 20h
- ☐ push edx
- ☐ mov ecx, 10h
- ☐ push ecx
- ☐ pop ebx
- ☒ pop edx

Correct!

```
mov  edx,20h
push edx
mov  ecx,10h
push ecx
pop  ebx
☒ pop  edx
```

```
push 20h
mov  ecx,10h
push ecx
pop  eax
☐ pop  ebx
```

```
mov  ecx,10h
mov  edx,20h
push ecx
push edx
pop  ebx
☐ pop  edx
```

Question 28

1 / 1 pts

Which library procedure writes a single character to standard output?

Correct!

WriteChar

Correct Answers

WriteChar

Table 5-1

Question 29

1 / 1 pts

Which register contains the starting address of data when calling DumpMem?

Correct!

☒ ESI

☐ EXI

☐ EBX

☐ EXD

☐ EAX

☐ ECX

Question 30

1 / 1 pts

A/An _____ procedure call occurs when a called procedure calls another procedure before the first procedure returns.

☐ inner

Correct!

☒ nested

☐ little

☐ cointained

Quiz Score: **30** out of 30