Lab #3 - x86 Registers

Objectives
Understanding x86 Registers

Part #1 - Quiz Instructions
Please answer all of the given questions.

Q1) Which of the following registers is the Stack Pointer?

- ☐ SP
- ☐ ESI
- ☐ EDX
- ☐ AIX
- ☐ EXC
- ☐ ESP

Q2) BP is a register that holds the address of the next instruction to be executed.

1. True
2. False

Q3) AX is a 16-bit register, while EAX is a 32-bit register.

1. True
2. False

Q4) Which of the following registers is used for loops?

- ☐ ECX
- ☐ EDX
- ☐ EAX
- ☐ DX
- ☐ EIP
- ☐ EXC

Q5) Which of the following registers is the Source Index Pointer?

- ☐ ESI
- ☐ EBI
- ☐ EBP
- ☐ SI
- ☐ EIS

Q6) Which of the following EFLAGS Registers is set if the result of the operation is Zero?

- ☐ FZ
- ☐ ZF
- ☐ SS
- ☐ SF
- ☐ SD
- ☐ SF
- ☐ AF

Q7) What is the name of the EFLAGS register that is used when the result of an operation is negative? _____

Q8) The register EAX can also be used to hold a function call's return value.

1. True
2. False

Q9) Which of the following registers is the Instruction Pointer?

- ☐ EPB
- ☐ EIP
- ☐ BP
- ☐ AX
- ☐ EBP
- ☐ IP
- ☐ EAX

Q10) Which of the following registers is not a 32-bit register? (select all that apply)

- ☐ EAX
- ☐ ECX
- ☐ CX
- ☐ RAX
- ☐ RBX
- ☐ ESP
- ☐ EBP
- ☐ EDI
- ☐ CL
- ☐ EBX

Q11) Explain why the stack uses two registers.

Part #2 – Please reflect on what you learned from this lab