

# CS 4400: Computer Systems

## Problem Set 6

1. Consider the following three C functions.

```
int fun1(int x, int y) {
    if(y < x)
        return x;
    return y;
}
```

```
int fun2(int x, int y) {
    if(x < y)
        return x;
    return y;
}
```

```
int fun3(int x, int y) {
    unsigned ux = (unsigned) x;
    if(ux < y)
        return y;
    return x;
}
```

Which function is equivalent to the IA32 assembly code shown here?

```
    pushl %ebp
    movl %esp,%ebp
    movl 8(%ebp),%edx
    movl 12(%ebp),%eax
    cmpl %eax,%edx
    jge .L9
    movl %edx,%eax
.L9:
    movl %ebp,%esp
    popl %ebp
    ret
```

2. Problem 3.56 from the textbook.
3. Problem 3.59 from the textbook.