

CS 367-001 – Spring 2017

Homework #4

Individual Assignment.

Due Wednesday, May 3, 12:00 noon as hard copy

Note: You are not expected to edit this document; **please write or type your solutions on a separate sheet of paper.** This is an individual assignment.

1. (15 pts) Your friend talks about a puzzling situation he encountered when compiling a C program. When he attempts to compile his program, he gets the following error message:

```
> gcc -L. -lmylib lab1.o
lab1.o: In function `main':
lab1.o(.text+0x4): undefined reference to `myfunction'
```

He explains that `mylib` is a static library where he defined several auxiliary functions for his projects, including `myfunction`. He says that he is puzzled because the compilation succeeds if he changes the order of parameters:

```
> gcc -L. lab1.o -lmylib
```

Give an accurate explanation of what is going on with the linker's algorithm when processing the two "gcc" commands.

2. (15 pts) Problem 6.36 (Page 654)
3. (30 pts) Problem 6.41 and 6.42 (Pages 658, 659)
4. (30 pts) Problem 9.11 and 9.12 (Pages 877, 878)
5. (10 pts) Problem 7.8 (Page 716)