CptS 122 – Data Structures
January 15, 2018

Your Name: _____ TA's Name: _____
ID#: _____ Section #: _____

Take Home: Quiz 1 (15 pts) – Review of C Language Concepts

Print out, and provide your solutions to your TA in lab during the week of January 22!

1. (5 pts) Write/Implement a function definition for a function `my_strcpy()` with the following header:

```
char *my_strcpy (char *destination, const char *source)
```

This function copies all characters in the string pointed to by `source` into the array pointed to by `destination`. The null character is also copied. The function returns `destination`.

2. (5 pts) Write/Implement a function definition for a function `my_strncat()` with the following header:

```
char *my_strncat (char *destination, const char *source, int n)
```

This function appends no more than `n` characters from the string pointed to by `source` to the end of the string pointed to by `destination`. The null character is appended to the end of the result. If the length of the C string in `source` is less than `n`, then only the content up to the terminating null character is copied. The `destination` pointer is returned.

3. (5 pts) Write/Implement a function definition for a function `my_strcmp()` with the following header:

```
int my_strcmp (const char *s1, const char *s2)
```

This function compares the string pointed to by `s1` to the string pointed to by `s2`. If the string pointed to by `s1` comes before the string pointed to by `s2` in dictionary ordering, then -1 is returned. If the string pointed to by `s1` is the same as the string pointed to by `s2`, then 0 is returned (the compare function is case sensitive). Otherwise, 1 is returned. **For this problem, you must use pointer arithmetic only, please do NOT use array notation!**