CSE 374 Midterm Exam   4/27/18

Reference Information

Some of this information might be useful while answering questions on the exam. Feel free to remove this page for reference while you work. Please do not write on this page – anything written here will not be graded.

Shell: Some of the tests that can appear in a [ ] or [[ ]] test command in a bash script:
- string comparisons: =, !=
- numeric comparisons: -eq, -ne, -gt, -ge, -lt, -le
- -d *name* test for directory
- -f *name* test for regular file

Shell variables: $# (# arguments), $? (last command result), $@, $* (all arguments), $0, $1, … (specific arguments), shift (discard first argument)

Strings and characters (<string.h>, <ctype.h>)

Some of the string library functions:
- char* strncpy(*dest*, *src*, *n*), copies exactly *n* characters from *src* to *dst*, adding '\0's at end if fewer than *n* characters in *src* so that *n* chars. are copied.
- char* strcpy(*dest*, *src*)
- char* strncat(*dest*, *src*, *n*), append up to *n* characters from *src* to the end of *dest*, put '\0' at end, either copy from *src* or added if no '\0' in copied part of *src*.
- char* strcat(*dest*, *src*)
- int   strncmp(*string1*, *string2*, *n*), <0, =0, >0 if compare <, =, >
- int   strcmp(*string1*, *string2*)
- char* strstr(*string, search_string*)
- int   strnlen(*s, max_length*)
- int   strlen(*s*)
- Character tests: isupper(*c*), islower(*c*), isdigit(*c*), isspace(*c*)
- Character conversions: toupper(*c*), tolower(*c*)

Files (<stdio.h>)

Some file functions and information:
- Default streams: stdin, stdout, and stderr.
- FILE* fopen(*filename*, *mode*), modes include "r" and "w"
- char* fgets(*line, max_length, file*), returns NULL on end of file
- int   feof(*file*), returns non-zero if end of *file* has been reached
- int   fputs(*line, file*)
- int   fclose(*file*)

A few printf format codes: %d (integer), %c (char), %s (char*)