

Final Exam Study Guide

UNIX general concepts

- Directory Structure of UNIX (home, working, root directories, commands, etc)
- Filename Generation (Wildcards, etc)
- Input / Output Redirection
- Pipes
- File Permissions
- Command line processing / parsing
- Regular Expressions
- stdin, stdout, stderr
- What is a filter?
- What is a file link?
- What is a shell?
- Quoting variables
- Command substitution
- What is a condition codes?

Utilities

- Network utilities (ftp, telnet, ping)
- umask
- find
- cut & join
- man pages
- sort & uniq
- head & tail
- cp & mv & rm
- cat & more
- tee
- grep
- expr
- who
- ps
- whoami
- wc
- ls
- cd and pwd
- date
- chmod
- kill

Bourne Shell

- export
- while & until
- if & case
- Shell specials (\$1, \$2, \$*, \$\$, etc)
- Background processing
- Read
- Shell variables
- shift

C - Shell

- History
- Alias
- Variables
- Arrays
- Command line – argv
- Shell specific variables
- Conditional statements
- Loop statements

Korn Shell

- Arrays
- New conditional operators [[]] and (())
- Loop statements
- Set statement
- Select statement

General Shell Stuff (Bourne, C, Korn, BASH)

- What is the same between the shells
- What is different in the shells
- How do you tell which shell you are running
- What is “export” for?
- What does “source” do?
- What is “setenv” for?

AWK

- Conditional statements
- Loop statements
- Associative arrays
- BEGIN & END

- NF and NR
- OFS and ORS
- Split statements
- Next statements

SED

- Substitutions
- Deletions
- Regular Expressions
- Use as head, tail, and grep

C Programming

- stdin, stdout, stderr
- make
- C compiler
- C linker
- C pre-processor
- Buffered vs. unbuffered I/O
- fgets, fputs, fread, fwrite, fgetc, fputc
- fopen, fclose, fflush
- read, write, open, close
- fork and wait
- execlp, execvp, execl, execv
- dup and dup2
- argc and argv