

Quiz Answers
CS-330 Unix and Network Programming

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Quiz 6: Awk

- Which function in awk is used to divide a string into pieces separated by the field separator and store the pieces in an array ?
 - split
- What is the meaning of the \$0 variable in awk ?
 - it holds the entire record
- awk reads input lines automatically
 - true
- Variables in awk are initialized how ?
 - to 0 or "" depending on context when first used
- Every awk program must use the BEGIN and END patterns.
 - false
- Which command line option allows to specify an awk program in a file ?
 - -f
- awk allows strings as array index.
 - true
- awk can use which character as field separator ?
 - any character
- In awk, strings printed with the "%20s" printf directive will always be left justified.
 - false
- What is the string concatenation operator in awk ?
 - the space character

Quiz 7: Sed

- In sed, the "i" command adds lines before the address
 - True
- In sed, when using a range address, the lines specified need not be consecutive.
 - False
- In sed, the dollar sign (\$) can be used as a single line address. What is its meaning?
 - the last line of input
- If the exclamation mark "!" is used after an sed address, then it will only search for obsolete lines.
 - False
- Which character is used to delimit the search and replacement components of the sed "s" command?
 - any, as long as all 3 are the same
- If sed is invoked as "sed -n" then it sorts its input numerically.
 - False
- The sed editor can be called from a shell script
 - True
- Which of the following utilities can be used to systematically process files?
 - all of the above
- Which of the following is NOT a valid address type for sed?
 - sublet address
- If no address is specified for the sed command then the command is applied to every input line.
 - true

Quiz 9: Systems Programming

- The C library function perror translate an error code into an understandable error message.
 - True
- In C++, C strings are handled the same way as instances of the standard string class.
 - False
- C++ can call functions from the standard C library.
 - true
- In C++ what is the correct include to use the strlen or strcpy library functions ?
 - include <cstring>
- The C regular expression library uses 2 functions: regcomp and regexec. Which statement is true about these functions?
 - regexec runs the search that was prepared by regcomp
- For the strcpy C library function, the size of the destination array must be long enough to contain the source string including the terminating null character.
 - true
- A C++ program cannot access environment variables.
 - false
- C library function exit terminates a process and allows to set the return status. A status of 0 indicates failure.
 - false
- The C structure dirent does not contain the file name.
 - false
- Which C library functions enable directory I/O ?
 - opendir, readdir

When it lands on the spring it has the same energy as above $\frac{1}{2}mv_i^2 = 79J$. That will all go into spring potential energy

$$79J = \frac{1}{2}kl^2$$
$$\implies x = 0.4m.$$

Quiz 10

- A system call is linked to an executable and becomes logically part of the executable.
 - False
- C++ uses which of the following to identify a file in low-level IO using system calls ?
 - File descriptor number
- The read and write system calls use C++ strings to handle its data.
 - False
- open, close, create, read and write are system calls to achieve low-level I/O.
 - False
- Which of the following is not a valid flag to for the open system call ?
 - O_READ
- Which of to following is a system call that can be used to create a file ?
 - Open
- A system call uses a special C++ syntax for invocation.
 - False
- Which system call is used to remove a file ?
 - unlink
- The dup system call is used to claim standard I/O from inside a program.
 - True
- System calls typically set the errno variable and return -1 if they encounter and error.
 - True