CSCI 2500: Computer Organization

Lab 2 Exercises   Name(s):

1. Assume you have the following files in your current directory:

   ```
   feb96       jan12.02
   jan19.02    jan26.02
   jan5.02     jan95
   jan96       jan97
   jan98       mar98
   memo1       memo10
   memo2       memo2.sv
   ```

   What would be the output from the following commands?

   echo *   echo m[a-df-z]*

   echo jan*   echo ?????

   echo jan?? feb?? mar??   echo *[!0-9]

   echo [A-Z]*   echo *.*

   echo *02   echo [fjm][ae][bnr]*

2. Describe the outputs of the following commands:

   ls | wc -l

   ls *.c | wc -l

   rm ???

   mv progs/* /users/steve/backup

   rm *.o

   cd; pwd

   plotdata 2>errors &

3. What will be matched by the following regular expressions?

```
s*                      [0-9]\{3\}

se*                     [0-9]\{3,4\}

z\{1,5\}                [0-9]\{1,3\},[0-9]\{3\}

z\{5,\}                 [A-Za-z_][A-Za-z_0-9]*

z\{10\}                 [0-9]

[0-9]*                  ^Begin$
```

4. Describe the output of the following commands?

```
cat names.txt | grep 'mary'

cat names.txt | grep '^mary'

grep '[Uu]nix' ch?/*

grep -i -n Mike ch[1-3]/sect1

cut -f1 -d',' data.csv

date | cut -c12-16

paste -d';' names.txt phone_nums.txt

sort -r names | uniq -d

tr '{}' '()' < eqn_file.txt > new_eqn_file.txt
```

5. Download the file 'lab_2_file' from LMS (Labs → Lab 2 (9/9/2015)) and copy it into your Unix environment. Examine the contents of the file using the Unix cat command.

   (a) Use the Unix octal dump (od) program get the contents of this file in hexadecimal and then convert the hex into binary (Hint: make sure to include the following od command line option: -t x1). Use the man page for od to check all the output options.

   (b) Using the binary data obtained in (a), convert each byte into a decimal number.

   (c) Compare the decimal unsigned results from (b) to the ASCII table. Is this a valid ASCII file?