PSG COLLEGE OF TECHNOLOGY

DEPARTMENT OF APPLIED MATHS AND COMPUTATIONAL SCIENCES

V SEM M.Sc. (SS)

15XW56: UNIX SHELL AND SYSTEM PROGRAMMING LAB

**Exercise on Regular Expressions**

Design regular expressions for each of the following patterns. Add lines to your sample file in order to thoroughly test your Regular expression using grep command.

* Begins with a decimal digit: 0 through 9.
* Begins with a hexadecimal digit: 0 through 9, a through f, or A through F.
* Entire line is a three-digit, decimal value.
* Entire line consists of hexadecimal digits.
* Entire line consists of alphabetic characters, either lower- or upper-case.
* Line contains a phone number of the form (217) xxx-xxxx.
* Line contains a phone number of the form (312) xxx-xxxx or (708) xxx-xxxx.

( x – Can be any digit)

* Line has at least one period.
* Line has a human-readable IP address
* Line with only an email address
* Line includes a quoted string; i.e., text enclosed within double quotes.  
  (k.) Line includes a dollar amount with dollars and cents, such as $123.46. There must be at least one digit for the dollar amount and exactly two digits for the number of cents.
* Line is longer than 10 characters.
* Line is shorter than 10 characters.
* All 7-letter words of the form b---da- (- is any lower case alphabet)
* All words, exclusively lower-case, in which i immediately follows q.
* All words which begin with a capital letter, in which i immediately follows q.
* All words with either 22 or 23 letters.
* All words which have all five vowels (a, e, i, o, and u) - in that order, interspersed with other non-vowels.