

Question 1:

```
def q1( searchString ) :  
    pattern = r"(A{2,5})"  
    return re.search( pattern, searchString )
```

Question 2:

```
def q2( string ) :  
    pattern = r"(\d*)\.(\\d+)"  
    repl = "float"  
    return re.sub( pattern, repl, string )
```

Question 3:

```
def q3( string ):  
    pattern = r"(\d*)\.(\\d+)"  
    repl = "float"  
    newString, n = re.subn( pattern, repl, string )  
    return n
```

Question 4:

```
def q4( string ):  
    pattern = r"-?(\\d+)"  
    matchList = re.findall( pattern, string )  
    sum = 0  
    for number in matchList:  
        sum += int( number )  
    avg = sum / len( matchList )  
    return avg
```

Question 5:

```
def q5( string ):  
    re.sub( r"EE364", "EE461", string, 1 )
```

Question 6:

```
def checkIP( string ):
    pattern = r"(0{0,2}\d+)\.(0{0,2}\d+)\.(0{0,2}\d+)\.(0{0,2}\d+)"
    invalidIP = 0
    match = re.match( pattern, line )
    if match:
        i = 1
        while i <= 4:
            if not int(match.group(i)) <= 255 :
                invalidIP = 1
            i += 1
    if invalidIP:
        return 0
    else:
        return 1
```

Question 7:

- 1) The command would run a case insensitive search through the string for “e”
- 2) The command checks the string if it had an “is a” within it
- 3) The command would give an error since there are no group names that have been defined
- 4) The command would search the string for “I” and then “like” repeated 10 or more times and “you” repeated one or two times.