Programming in Python (CSE 3142)
MINOR ASSIGNMENT-9: FILES AND EXCEPTIONS

1. Write a Python function that takes two file names, file1 and file2 as input. The function should read the contents of the file file1 line by line and should write them to another file file2 after adding a newline at the end of each line.

2. Write a Python function that reads a file file1 and displays the number of words and the number of vowels in the file.

3. Write a Python function that takes data to be stored in the file file1 as interactive input from the user until he responds with nothing as input. Each line (or paragraph) taken as input from the user should be capitalized, and stored in the file file1.

4. Write a Python function that reads the file file1 and copies only alternative lines to another file file2. Alternative lines copied should be the odd numbered lines. Handle all exceptions that can be raised.

5. Write a Python function that takes two files of equal size as input from the user. The first file contains weights of items and the second file contains corresponding prices. Create another file that should contain price per unit weight for each item.

6. Write a Python function that reads the contents of the file Poem.txt and counts the number of alphabets, blank spaces, lowercase letters and uppercase letters, the number of words starting with a vowel, and the number of occurrences of word 'beautiful' in the file.

7. What will be the output produced on executing function inverse1 when the following input is entered as the value of variable num:
(a)5 (b)0 (c)2.0 (d)x (e)None

```
def inverse1():
    try:
        num = input('Enter the number: ')
        num = float(num)
        inverse = 1.0 / num
    except ValueError:
        print('ValueError')
    except TypeError:
        print('TypeError')
    except ZeroDivisionError:
        print('ZeroDivisionError')
    except:
        print('Any other Error')
    else:
        print(inverse)
```

```
    finally:
        print('Function inverse completed')
```

8. Examine the following function percentage:

```
def  percentage(marks, total):
    try:
        percent = (marks / total) * 100
    except ValueError:
        print('ValueError')
    except TypeError:
        print('TypeError')
    except ZeroDivisionError:
        print('ZeroDivisionError')
    except:
        print('Any other Error')
    else:
        print(percent)
    finally:
        print('Function percentage completed')
```

Determine the output for the following function calls:
(a) percentage(150.0, 200.0)
(b) percentage(150.0, 0.0)
(c) percentage('150.0', '200.0')

9. Identify two exceptions that may be raised while executing the following statement:

```
result = a + b
```

10. What will be the output for the following code snippets if the file being opened does not exist:

(a).

```
try:
    f = open('file1.txt', 'r')
except IOError:
    print('Problem with Input Output...\n')
else:
    print('No Problem with Input Output...')
```

(b).

```
try:
    f = open('file1.txt', 'w')
except IOError:
    print('Problem with Input Output...\n')
else:
    print('No Problem with Input Output...\n')
```

11. Consider the following program. Check for the error (if any), otherwise write the output.

```
f=open('PYTHON','w')
f.write(' "i am great " and ')
```

```
f.write(' " failure is a part of success" ')
f=open('PYTHON','r')
print(f.read())
f.close()
```

12. Consider the following program. Check for the error (if any), otherwise write the output.

```
f=open('file1','r')
f.write('"work is worship"')
f.close()
```

13. Consider the following program.Write the output.

(a).
```
f=open('PYTHON','w')
f.write('failure is a part of success')
f = open('PYTHON', 'r')
print(f.read(4))
f.close()
```

(b).
```
f=open('PYTHON','w')
f.write('failure is a part of success')
f = open('PYTHON', 'r')
print(f.read())
f.close()
```

14. Consider the following program.Write the output.

```
f=open('PYTHON','w')
f.write('failure is a part of success also, i am fine')
f = open('PYTHON', 'r')
print(f.readline())
f.close()
```

15. Consider the following program.Write the output.

```
f = open('PYTHON', 'w')
description =['we either choose the pain of discipline \n', 'or\n' 'the pain of regret\n']
f.writelines(description)
f.close()
f = open('PYTHON', 'r')
print(f.read())
f.close()
```