1.Write a program that read contents of the file ‘messages’ one character at a time and prints each character that is read.

```
f = open('first.txt','r')
for line in f:
    print(line)
for character in f:
    print(character)
```

```
hello world how are you
```

2.Write a Python program that searches for a file, obtains its size and reports the size in bytes/ KB/ MB as appropriate

```
fname='salaries.csv'
import os
print('Size of file is {}.kilobytes'.format(os.path.getsize(fname)))
```

```
Size of file is 638.kilobytes
```

3.Write a program to accept a filename from the user, create a file with that name(if it does not exist) and write some content into the file

```
import json
s=input('Enter a file name :')
file = open(s,'w')
file.write('Hello my world\n')
file.write('how are you???\n')
file=open(s,'r')
lines=file.readlines()
for line in lines:
    print(line)
```

```
Enter a file name :sample3.txt
Hello my world

how are you???
```

4.Write a program to read a file and display its contents along with line numbers before each line

```
L = ["hello\n", "world\n", "computerworld\n"]
file1 = open('myfile.txt', 'w')
file1.writelines(L)
file1.close()
file1 = open('myfile.txt', 'r')
Lines = file1.readlines()
count = 0
for line in Lines:
```

```
        count += 1
        print("Line{}: {}".format(count, line.strip()))
```

```
Line1: helloworld
Line2: computerworld
```

5.Write a program to copy the contents of one file into another

```
with open('C:first.txt','r') as firstfile, open('C:second.txt','w') as
secondfile:
        for line in firstfile:
                    secondfile.write(line)
print('second.txt')
```

```
second.txt
```

6.Write a program to append the contents of one file into another

```
name1 = input("Enter file to be read from: ")
name2 = input("Enter file to be appended to: ")
fin = open(name1, "r")
data2 = fin.read()
fin.close()
fout = open(name2, "a")
fout.write(data2)
fout.close()
```

7.Suppose a file contains student records, with each record containing name and age of student. Write a program to read these records and display them in sorted order by name

```
import json
file = open('name.txt','r')
a=json.load(file)
print(a)
for line in sorted(a):
    print(line,":",a[line])
file.close()
```

```
{'tom': 21, 'jerry': 20, 'rose': 22}
jerry : 20
rose : 22
tom : 21
```

8.Suppose there are three modules m1.py, m2.py and m3.py containing functions f1(), f2() and f3() respectively. Write a program to use these functions

```
import m1
a=int(input("Enter value of a :"))
b=int(input("Enter value of b :"))
print("Addition of two numbers is",m1.f1(a,b))
import m2
a=int(input("Enter value of a :"))
```

```
b=int(input("Enter value of b :"))
print("Subtraction of two numbers is",m2.f2(a,b))
import m3
a=int(input("Enter value of a :"))
b=int(input("Enter value of b :"))
print("Multiplication of two numbers is",m3.f3(a,b))
```

```
Enter value of a :10
Enter value of b :5
Addition of two numbers is 15
Enter value of a :10
Enter value of b :5
Subtraction of two numbers is 5
Enter value of a :10
Enter value of b :5
Multiplication of two numbers is 50
```

9.Write a program containing functions fun1(), fun2() and fun3() and some statements. Add suitable code to the program such that you can use it as a module or a normal program

```
import module
a=int(input("Enter value of a :"))
b=int(input("Enter value of b :"))
print('a Divided by b is',module.fun1(a,b))
print('a Mod by b is',module.fun2(a,b))
print('a = b',module.fun3(a,b))
```

```
Enter value of a :5
Enter value of b :5
a Divided by b is 1.0
a Mod by b is 0
a = b True
```

10.Suppose a module called mod.py contains functions f1(), f2() and f3(). Write three forms of import statements to use these functions in your program

```
import mod
a=int(input("Enter value of a :"))
b=int(input("Enter value of b :"))
print('a additiction of b is',mod.f1(a,b))
print('a multiplication of b is',mod.f2(a,b))
print('a subtraction of b is',mod.f3(a,b))
```

```
Enter value of a :4
Enter value of b :5
a additiction of b is 9
a multiplication of b is 20
a subtraction of b is -1
```