Data File Handling 5 Marks Questions

[1] What is the advantage of using a csv file for permanent storage? Write a Program in Python that defines and calls the following user defined functions:

(i) insert() – To accept and add data of a apps to a CSV file 'apps.csv'. Each record consists of a list with field elements as app_id, name and mobile to store id, app name and number of downloads respectively.

(ii) no_of_records() – To count the number of records present in the CSV file named 'apps.csv'.

Ans.:

Advantages of a csv file:

- It is human readable – can be opened in Excel and Notepad applications
- It is just like text file
- It is common structure file can be opened by notepad, spreadsheet software like MS Excel and MS word also
- Easy to process data in tabular form

(i) Code for Function insert():

```
import csv
def insert():
 f=open('apps.csv','a',newline='')
 app_id=int(input("Enter App ID:"))
 app_name=input("Enter Name of App:")
 model=input("Enter Model:")
 company=input("Enter Company:")
 downloads=int(input("Enter no. downloads in thousands:"))
 l=[app_id,app_name,model,company,downloads]
 wo=csv.writer(f)
 wo.writerow(l)
 f.close()
```

(ii) Code for no_of_records()

Method 1

```
def no_of_records():
 f=open("apps.csv",'r')
 ro=csv.reader(f)
 l=list(ro)
 print("No. of records:",len(l))
 f.close()
```

Method 2

```
def no_of_records():
 f=open("apps.csv",'r')
 ro=csv.reader(f)
 c=0
 for i in ro:
  c+=1
 print("No. of records:",c)
 f.close()
```

Function Calling:

```
insert()
no_of_records()
```

[2] Give any one point of difference between a binary file and a csv file. Write a Program in Python that defines and calls the following user defined functions:

(i) add() – To accept and add data of an employee to a CSV file ‘emp.csv’. Each record consists of a list with field elements as eid, name and salary to store employee id, employee name and employee salary respectively.

(ii) search()- To display the records of the employee whose salary is more than 40000.

Ans.:

Binary File	CSV File
The binary file contains data in 0s and 1s form	CSV file contains data in tabular form
It is saved by .bin or .dat extension	It is saved by .csv extension
It must be created by a python program only	It can be created by notepad or spreadsheet
It is not a humanly readable file	It is a humanly readable file

Code for function add():

```
def add():
  f=open('emp.csv','a',newline='')
  empid=int(input("Enter employee ID:"))
  empname=input("Enter Employee Name:")
  sal=float(input("Enter Salary:"))
  l=[empid,empname,sal]
  wo=csv.writer(f)
  wo.writerow(l)
  f.close()
```

Code for function search()

```
def search():
  f=open("emp.csv",'r')
  ro=csv.reader(f)
  for i in ro:
    if float(i[2])>40000:
        print(i)
    f.close()
```

Function Calling:

```
add()
search()
```

[3] What is delimiter in CSV file? Write a program in python that defines and calls the following user defined function:

i) Add() – To accept data and add data of employee to a CSV file ‘record.csv’. Each record consists of a list with field elements as empid, name and mobile to store employee id, employee name and employee salary.

ii) CountR():To count number of records present in CSV file named ‘record.csv’.

Ans.:

Delimiter refers to a character used to separate the values or lines in CSV file. By default delimiter for CSV file values is a comma and the new line is ‘\n’. Users can change it anytime.

Code is similar as question 1, do yourself.

[4] Give any one point of difference between a text file and csv file. Write a python program which defines and calls the following functions:

i) add() – To accept and add data of a furniture to a csv file ‘furdata.csv’. Each record consists of a list with field elements such as fid, name and fprice to store furniture id, furniture name and furniture price respectively.

ii) search() – To display records of sofa whose price is more than 12000.

Ans.:

Text File	CSV File
It represents data into ASCII format.	It represents data into ASCII form and in tabular form.

Code for add():

```
def add():
 f=open('furdata.csv','a',newline='')
 fid=int(input("Enter furniture ID:"))
 fname=input("Enter furniture Name:")
 price=float(input("Enter price:"))
 l=[fid,fname,price]
 wo=csv.writer(f)
 wo.writerow(l)
 f.close()
```

Code for search()

```
def search():
 f=open("furdata.csv",'r')
 ro=csv.reader(f)
 for i in ro:
   if i[1].lower()=='sofa' and float(i[2])>12000:
     print(i)
 f.close()
```

[5] Archi of class 12 is writing a program to create a CSV file “user.csv” which contains user name and password for some entries. He has written the following code. As a programmer, help her to successfully execute the given task.

```
import __________ #Line1
def addCsvFile(user, pwd):
 f=open('user.csv','_') #Line2
 w=csv.writer(f)
 w.writerow([UserName,Password])
 f.close( )
```

csv file reading code

```
def readCsvFile(): #to read data from CSV file
  with open('user.csv','r') as f:
    ro=csv.______________(newFile) #Line3
    for i in ro:
      print(i)
  f.________ #Line4
addCsvFile('Aditya','987@555')
addCsvFile('Archi','arc@maj')
addCsvFile('Krish','krisha@Patel')
readCsvFile()
OUTPUT_________________ #Line 5
```

1. What module should be imported in #Line1 for successful execution of the program?
2. In which mode file should be opened to work with user.csv file in#Line2
3. Fill in the blank in #Line3 to read data from csv file
4. Fill in the blank in #Line4 to close the file
5. Write the output he will obtain while executing Line5

Ans.:

1. csv
2. ‘a’
3. reader
4. close
5. Output:

```
['Aditya'.'987@555']
['Archi','arc@maj']
['Krish','Krisha@Patel']
```