CLASS – XII (QUESTION BANK)

CHAPTER – FILE HANDLING

CASE STUDY BASED QUESTIONS:

01. Sonu Bharatiya has joined as an intern at Realsoft company. The company has departments spread across India and the details of all departments are stored in a file, Dept.csv, as shown below:

Dept_ID	Dept_Name	Location
D010	Admin	Delhi
D020	Production	Hyderabad
D030	Marketing	Bangalore
D040	Agri-Research	Mohali
D050	Agri-Marketing	Mohali
D060	Human Resources	Hyderabad
D070	Finance	Delhi
D080	Public Relations	Bangalore

Sonu has been asked to write a program to list the departments at a specific location. He has written the following code, with somewords/syntax missing.

```
__________  ______                                  #Line1
with open (________, newline=____) as csvfile:      #Line2
        data=csv.reader ( ______, delimiter='  ')   #Line3
        for row in data:                            #Line4
            if ______ in row:                       #Line5
                print ( _______ )                   #Line6
```

a) Which library must be added to the program, for it to work?
File **Line1** for this

b) Complete **Line2** so that the file storing the department details gets opened with suppressed newline processing.

c) The records are to be read now by row, not field by field. For this fill in the blank in **Line3**.

d) Sonu wants to print only the departments in location "Mohali". Complete Lines 5 and 6 for the same.

e) Convert the above given incomplete code so that location name is passed to a function **Deplocation()** and the function prints the rows of department details from that location.

02. Diksha Behl is a student of non-IT stream. However, she wants to learn Python also as it will be helpful to her in her field. While learning Python, her teacher has assigned her an assignment to complete an incomplete program given below.

The program intends to print from a csv file (people.csv) that stores tab separated fields as:

EmpId	Fname	Lname	Phone
201	Vibhu	Jain	295000
202	Nooh	Kirk	610011
203	Haris	Jamil	92055
204	Kulwant	Singh	69700

The incokplete code given to Diksha is as follows:

```
import csv                                          #Line1
with open ( _____, ___ ) as my file                 #Line2
    fin=csv._____ (myfile, delimiter= ___ )         #Line3
    for row in _____:                               #Line4
        print( _____ )                              #Line5
```

a) Complete the **Line2** of the given code so that given csv file is opened in read mode for processing.

b) Complete **Line3** so that the tab separated csv file is read into **fin** object.

c) Complete the code of **Line 4** and **5** so that only the records from the open csv file are printed line by line.

d) Modify the code of **Line 4** and **5** so that only the fourth field (Phone) from each record gets printed.

e) Write the output obtained by running the code of **Line 4** and **5**.

03. Ranjan Kumar of class 12 is writing a program to create a CSV file "user.csv" which will contain user name and password for some entries. He has written the following code. As a programmer, help him to successfully execute the given task.

```
import _____                                    #Line1
def addCsvFile (UserName, PassWord):            #towrite/add data into the csv file
    f=open ('user.csv', '_____')                #Line2
    newFileWriter=csv.writer(f)
    newFileWriter.writerrow([UserName, Password])
    f.close()
#csv file reading code
def readCsvFile(): #to read data from CSV file
    with open ('user.csv', 'r') as newFile:
        newFileReader=csv._____ (newFile)       #Line3
        for row in newFileReader:
            print (row[0], row[1])
        newFile. _____                          #Line4
addCsvFile("Arjun", "123@56")
addCsvFile("Arunima", "aru@nima")
addCsvFile("Frieda", "myname@FRD")
readCsvFile()                                   #Line5
```

a) Name the module he should import in Line1.

b) In which mode, Ranjan should open the file to add data into the file.

c) Fill in the blank in Line 3 to read the data from a csv file.

d) Fill in the blank in Line 4 to close the file.

e) Write the output he will obtain while executing Line 5.

04. Ami Surani has been chosen to participate in a Python workshop. While learning csv files, she has been assigned the following incomplete code. Help her complete the code.

```
import csv
#records of 5 students as lists
s1 = ['Anju', 'Sharma', 92, 'A']
s2 = ['Tom', 'Sean', 90, 'A']
```

```
s3 = ['Ali, 'Hassan', 68, 'B']
s4 = ['Harjyot', 'Singh, 69, 'B']
s5 = ['Shubi, 'Pillai', 57, 'C']
#2D list=list containing lists
studata=[["First_name", "Second_name", "Marks", "Grade"],        #Fill_1A
_____________________________]                                   #Fill_1B
sfile=open(_____, ____)                                          #Fill_2
with _________ :                                                 #Fill_3A
    writer=csv._______ (sfile)                                   #Fill_3B
    Writer._______ (_______) #write 2D list in one go            #Fill_4
print("Student Records successfully written")
```

a) The given student records are individually available in the form of lists S1, S2, S3, S4 and S5. Complete **Fill_1A** and **Fill_1B** so that all the student details along with column headings are available in the form of a 2D list – a list of lists.

b) Complete **Fill_2** to open a file **student.csv** to store the student records written into it.

c) Complete **Fill_3A** and **Fill_3B** in the code so that the open csv file is ready for writing.

d) Complete **Fill_4** code line so that the 2D list **studata** is written on the open csv file in one go.

e) The given code has opened file using **with** statement, but not closed it. Is it an error? Why?

05. Rudy Johnson is an enthusiastic student, who is chosen for a student internship with a Government office. As the first day assignment, he has been asked to store some state-names along with their capitals in a file, namely **capitals.csv**. He has been asked to store the following details:

"SNo.", "State", "Capital"

1, "Delhi", "New Delhi"

2, "Assam", "Dispur"

3, "Bihar", "Patna"

4, "M.P.", "Bhopal"

5, "U.P.", "Lucknow"

He has been given an incomplete Python code for the same, as shown below.

```
import csv
with open ( _______, ____ ) as sfile:                    #Fill_Line1
    fileWriter = _______ ( _____, _________ )            #Fill_Line2
    _______, __________ (["SNo.", "State", "Capital"])   #Fill_Line3
    ____________________________________________         #Fill_Line4
    ____________________________________________         #Fill_Line5
    ____________________________________________         #Fill_Line6
    ____________________________________________         #Fill_Line7
    ____________________________________________         #Fill_Line8
```

Help him complete the code as per the following instructions.

a) Complete **Fill_Line1** in the given code so that the mentioned file is opened for writing the given data.

b) Complete **Fill_Line2** in the given code so that file is ready for csv style writing with delimiter as a **tab**.

c) Complete **Fill_Line3** to write the column headings in the csv file as the first line.

d) Complete lines **(Fill-line4 to Fill-line8)** to write the given states and capitals in the open file.

e) Although with the 'with' statement, you do not need to close a file, but assuming that the file is opened in a file object, namely **sfile**, how would you close it? Write a statement for this.

06. Rudy Johnson (mentioned in earlier question) has been given another incomplete code where he is supposed to write the following details in a file IITS.CSV in one go.

S.No.	Name of IIT	Abbreviation	Founded
1	IIT Kharagpur	IITKGP	1951
2	IIT Bombay	IITB	1958
3	IIT Madras	IITM	1959
4	IIT Kanpur	IITK	1959
5	IIT Delhi	IITD	1961

The incomplete code given to Rudy is as follows:

```
__________ as cf                    #Fill_Line1
_____________________               #Fill_Line2
```

```
with _________________ as ifile:                    #Fill_Line3
        fileWriter = _______ ( ______ )             #Fill_Line4
        ____________________________                #Fill_Line5
```

Help him complete the code as per the following instructions.

a) Complete the **Fill_Line1** so that the required library is imported with lias name as **cf**.

b) Complete the **Fill_Line2** to declare a datastructure, namely **IITinfo,** to hold all the data to be written into the file. **Note:** Create one data structure holding all the information.

c) Open the mentioned file so that the data is written onto it. **(Fill_line3)**

d) Complete **Fill_Line4** so that file is ready to receive the data in csv_file firndly form.

e) Write all the data in one go by writing one statement for it. (**Fill_line5**)

07. Raunaq Singh Sodhi has won a junior programming competition and thus won to attend a programming workshop. In the workshop, he has been assigned the following incomplete code, which is creting a CSV (toppers.csv) file with some topper records.

```
import csv
col_Headings = ['Subject', 'TopperName', 'Marks', 'Section']
data= [['Computer Sc.', 'Anuja', 100, 'C'],
       ['Physics', 'Chetan', 99, 'A'],
       ['Mathematics', 'Dennis', 100, '   '],
       ['Chemistry', 'Prabhnoor', 98, 'B'],
       ['English', 'Fahim', 97, 'A']]
filename=_____                                      #Fill_Line1
with _______ ( _______, ____ ) as tfile:            #Fill_Line2
       filewriter = _______ ( _______ )             #Fill_Line3
       filewriter._______ ( _______ )               #Fill_Line4
       filewriter.writerows (data)                  #Fill_Line5
```

a) Complete **Fill_Line1** which stores the name of the file being created.

b) Complete **Fill_Line2** to open the file for writing using **with** statement.

c) Complete **Fill_Line3** so that the file becomes writable in csv format.

d) Complete **Fill_Line4** to write the column headings list (col_Headings) on the file.

e) **Fill_Line5** writes the 2D list (data) containg all the topper details, in one go.
Write equivalent code to replace **Fill_Line5**, which writes the topper data as record by record from the **data** 2D list.

08. Shreya Luna has been given an assignment to work on the following incomplete code, which is working with a csv file **(Supplier.csv)** containing the below given records as of now:

SuppNo, Supplier, Status, City
S1, Britannia, 10, Delhi
S2, New Bakers, 30, Mumbai
S3, Mother Dairy, 10, Delhi
S4, Cookz, 50, Bangalore
S5, Haldiram, 40, Jaipur

Through the code, the following new supplier records are to be added to the file **Suppliers.csv** (along with the existing records)

S7, TeaShea, 40, Delhi
S8, CoffeeShofee, 60, Mumbai
S9, Pizzawizza, 50, Jaipur

The incomplete code is as follows:

```
import csv
ans = 'y'
with _____ ( _______ , _______, _______ ) as f:          #Fill_Line1
    writer = csv.writer(f)
    while ans == 'y' or ans == 'Y'
        print ("Enter new supplier information below")
        suppno = _____________________________           #Fill_Line2
        suppname = _____________________________         #Fill_Line3
        status = _____________________________           #Fill_Line4
        city =  _____________________________            #Fill_Line5
        _________ ((_______, _______, _____, _____))     #Fill_Line6
        ans = input ("Enter more records? (y/n):")
    #below given code reads the csv file
    with _______ ( _____, _____, _____ ) as f1:          #Fill_Line7
        filereader = csv.reader(f1)
        for row in filereader:
            if 'Delhi' in row:
                print (row)
```

Help Shreya work on the given code as per the following instructions.

a) Open the given file so that the new supplier records can be written on the file, while retaining the old records. Make sure to suppress the newline / EOI. Complete **Fill_Line1** for the same.

b) Complete **Fill_Line2** to **Fill_Line5** to get the details of new supplier records to be apprended to the file.

c) Complete **Fill_Line6** so that all the obtained field values for a supplier are written on the file as one record.

d) After writing all the records, the same file is to be opened for reading, while suppressing the newline / EOI. Complete **Fill_Line7** for this.

e) After the given records are added to the file, the last chunk of the code is executed, which will display same result. What will be the output generated by the last five lines of the code. (**Fill_Line7** onwards)

09. Following code is writing the given set of data in a file **compresult.csv**.

```
import csv as cf
comdata = [
    ['Name', 'Points', 'Rank'],
    ['Shradha', 4500, 23],
    ['Nishchay', 4800, 31],
    ['Ali', 4500, 25],
    ['Adi', 5100, 14]
fh= _____                                   #Fill_Line1
cwriter=_____.writer( ____ )                #Fill_Line2
_____                                       #Fill_Line3
fh.close()
```

Complete the given code as per the instructions below:

a) Complete **Fill_Line1** that opens the CSV file for writing. Do not use 'with' statement.

b) Complete **Fill_Line2** and **Fill_Line3** so that given data is written on the file in one go.

c) When the following code given below **#READ_FILE** is executed.

```
#READ_FILE
with open ("compresult.csv", "r") as fh:                #Tagged line2
        creader = csv.reader(fh)
        for rec in creader:
            print(rec)
```

It gives the following output:

```
['Name', 'Points', 'Rank']
```

[ ]
['Shradha', '4500', '23']
[ ]
['Nishchay', '4800', '31']
[ ]
['Ali', '4500', '25']
[ ]
['Adi', '5100', '14']
[ ]

Briefly explain the reason of blank lines between the two successive records.

d) If the csv file has been created for windows that has EOL as '\r\n', then what changes would you make in the code below #READ_FILE so that these blank lines are not displayed.

e) Suggest a solution so that the newsline / EOL translation in suppressed at the time of creating and writing in the csv file.

10. Dhanush's teacher has given him the following text file (HigherEd.txt)

Higher education improves an individual's quality of life.
Studies show that, compared to high school graduates, college graduates have longer life spans, better access to health care, better dietary and health practices, greater economic stability and security.
We must ensure that our whole population receives an education that will allow full and continuing participation in this dynamic period of economic history.

and the following incomplete code:

```
def fileFunction ( _________________ ) :                #Fill_line5
    fin= ____________________                           #Fill_line6
    print ( _____________ (N1))                         #Fill_line7
    ____________________                                #Fill_line8
    print ( _____________ (N2))                         #Fill_line9
    #___main___
    N1=_____________________                            #Fill_line1
    N2=_____________________                            #Fill_line2
    Filename=_________________                          #Fill_line3
    fileFunction1(Filename, N1, N2)                     #Line4
```

Help Dhanush to complete his work as per the following instructions:

a) Add code to blank lines Fill_Line and Fill_line2 so that two integer numbers are read into variables N1 and N2.

b) As per the function call, complete the function header inFill_Line5.

c) Complete **Fill_Line6** so that the text file is opened for reading in the file object fin.

d) Complete **Fill_Line7** and **Fill_Line9** so that the passed number of characters are read from the file and printed.

e) Complete **Fill_Line8** so that the characters till the end of the line from the current position of the file pointer are read but not printed.

11. SHRUTHI has to complete her file based assignment by tonight. She has been given the following text file (Education.txt):

Higher education improves quality of life.

College graduates have longer life spans.

Education is birthright.

Shruthi has also received the following incomplete code.

```
def fileFunction ( ____, _____ ):                    #Fill_Line5
    fi = _____ (fname, _____ )                       #Fill_Line6
    fi. _________________                            #Fill_Line7
    fi. _________________                            #Fill_Line8
    fi.close()
    print ("Done")
def fileFunction2(fname, N1, N2):
    fi= open(fname)
    print (fi.read(N1))
    fi.readline()
    print(fi.read(N2))
    a=fi.readlines()
    print(a)
N1=16                                                #Line1
N2=22                                                #Line2
string="India strengthening"                         #Line3
fileFunction1( _________, _________ )                #File_Line4
fileFunction2('Education.txt', N1, N2)
```

Help her to complete her assignment as per the following instructions.

a) Complete **Fill_Line4** so that the function call to **FileFunction()** passes two arguments: First as the filename and the second as the **string** given in **Line3**.

b) Complete **Fill_Line5** so that the function header is as per its function call.

c) Complete **Fill_Line6** so that the file is opened in a mode that will allow it to write the string at the end of the file without deleting anything from the file.

d) Complete **Fill_Line7** and **Fill_Line8** so that the passed string is written on to the file, followed by a newline character.

e) What will be the output produced by the complete code?

12. Bibhuti Das own a junior programming contest and as a prize, she is attending a Python workshop. In one of her assignments, she has been given a text file namely **tbm.txt** as shown below:

The total turnover of the bamboo sector in the State has increased from the base levels of Rs.27.90 crores in 2006-07.

The turnover was 83.7 crore during the FY 2015-16 which has increased to over Rs. 96.53 cr. during 2016-17.

#tripura #bamboo #mission

tripura@government.gov

Bibhuti has been asked to complete the following code as per the instruction below:

```
myfile = _____                          #Fill_Line1
ch=" "   #initially stored a space (a non-None value)
dcount=0
ccount=0
while ch:
    _____                               #Fill_Line2
    if _____:                           #Fill_Line3
        _____                           #Fill_Line4
    _____:                              #Fill_Line5
        _____                           #Fill_Line6
print("Count 1:", dcount)
print("count 2:", ccount)
myfile.close()
```

a) Complete **Fill_Line1** so that the given file is opened for reading.

b) Complete **Fill_Line2** so that one character is read from the open file into the variable **Ch.**

c) Complete code for **Fill_Line3** and **Fill_Line4** so that it counts number of digits in the file, and stores the count in the variable **dcount**.

d) Complete code for **Fill_Line5** and **File_Line6** so that it counts number of these special characters: '@', '#' and '-', in the variable ccount.

e) After completing the code, what will be the output produced by the code.

13. Ami Shroff has joined as teaching assistant. She is working with data files using Python. She is currently working on the following incomplete code:

```
color = ['Red', 'Crimson', 'Fuschila', 'Ruby', 'Vermillion', 'Green', 'White', 'Black', 'Charcoal', 'Jet', 'Onyx', 'Pink', 'Yellow']
def longColors( _____, _____ ):                    #Fill_Line1 B
    with _____ :                                   #Fill_Line2
        _____:                                     #Fill_Line3
        _____:                                     #Fill_Line4A
        _____:                                     #Fill_Line4B
fname='colors.txt'
n=int(input("Enter a number 4-7):"))
_____                                              #Fill_Line1 A
file=open(fname)
print(file.read())
```

a) Complete code for **Fill_Line1A** and **Fill_Line1B** so that **Fill_Line1A** invokes the function **longColors( )** by passing two arguments- **the filename** and the integer value **n**.

b) **Fill_Line2:** Open the file for writing using a **with** statement in the file object namely **myfile**.

c) Inside the **with** block, write code for a loop so that each color from the color list is picked for processing. **(Fill_Line3)**

d) Inside the loop, write code so that only those colors from the color list get written in separate lines on the file that have word length more than **n** (the second parameter received) [**Fill_Line4A** and **Fill_Line4B**]

e) What will be the output produced, if the value of **n** is entered as 6?

14. Atif Altaf has been asked by his senior to complete the following code. The code uses a text file namely message.txt, which stores the following text:

The stimulus would focus on job manufacturing and a further extension of the Cabinet's decision to give a push to growth with production linked incentive schemes.

The incomplete code is as follows:

```
def count_words(filename):                         #Reference A
    bigwords=0                                     #to store the count of big words
```

```
with open(filename, "r")as f:
        _____                    #Fill_Line2
        _____                    #Fill_Line3
        for winwords;
            _____:               #Fill_Line4A
            _____                #Fill_Line4B
        return bigwords, len(words)   #Reference B
#____main____
_____                            #Fill_Line1
print("Total number of words:", count)   #Reference C
print("No. of big words:", big)          #Reference D
```

a) Complete **Fill_Line1** so that function **count_words()** is called. Refer to Reference lines (Reference A, B, C, D) before completing this line.

b) Complete **Fill_Line2** so that all the contents of the open file are read into a variable **data**.

c) Complete **Fill_Line3** so that individual words are extracted from the read data and stored in a list namely **words**.

d) Complete **Fill_Line4A, Fill_Line4B** so that count of words having length more than eight characters is calculated in the variable **bigwords**.

e) After completing the code, what will be the output produced?

15. Aaruni Shah is learning to work with Binary files in Python using a process known as pickling / de-pickling. Her teacher has given her the following incomplete code, which is creating a binary file namely **Mydata.dat** and then opens, reads and displays the content of this created file.

```
_____                            #Fill_Line1
sqlist = list()
for k in range(10):
    sqlist.append(k*k)
fout= _____                      #Fill_Line2A
_____                            #Fill_Line3
fout.close()
fin=_____                        #Fill_Line2B
fin.close()                      #Fill_Line4
print("Data from file:", mylist)
```

Help her complete the above code as per the instructions given below:

a) Complete **Fill_Line1** so that the required Python library becomes available to the program.

b) Complete **Fill_Line2A** so that the above mentioned binary file is opened for writing in the file object **fout**.

Similarly, complete **Fill_Line2B**, which will open the same binary file for reading in the file object **fin**.

c) Complete **Fill_Line3** so that the list created in the code, namely **Sqlist**, is written in the open file.

d) Complete **Fill_Line4** so that the contents of the open file in the file handle **fin** are read in a list namely **mylist**.

e) After completion of the code, what will be the output of the code?

16. Ariba Malik has been given following incomplete code, which takes a student's details (rollnumber, name and marks) and writes into a binary file **stu.dat** using pickling.

```
import pickle
sturno = int(input("Enter roll number:"))
stuname=input("Enter name:")
stumarks=float(input("Enter marks:"))
Stu1={"RollNo.": sturno, "Name" : stuname, "Marks": stumarks}
with _____ as fh:                                    #Fill_Line1
    _____                                            #Fill_Line2
_____ as fin:                                        #Fill_Line3
    _____                                            #Fill_Line4
    print(Rstu)
    if Rstu["Marks"] >=85:
        print("Eligible for merit certificate")
    else:
        print("Not eligible for merit certificate")
```

Help Ariba to complete the code as per the following instructions.

a) Complete **Fill_Line1** so that the mentioned binary file is opened for writing in **fh** object using a **with** statement.

b) Complete **Fill_Line2** so that the dictionary **Stu1**'s contents are written on the file opened in step (a).

c) Complete **Fill_Line3** so that the earlier created binary file is opened for reading in a file object namely **fin**, using a **with** statement.

d) Complete **Fill_Line4** so that the contents of open file in **fin** are read into a dictionary namely **Rstu**.

e) After completion of the code, what output will be produced, if the following details are input:

Enter roll number : 24

Enter name : Megha

Enter marks : 76

***