**Exam ID**

# DAV PUBLIC SCHOOLS, ODISHA ZONE-I

# PA-II EXAMINATION, 2021-22

- **Check that this question paper contains 18 printed pages.**
- **Set number given on the right hand side of the questions paper should be written on the OMR SHEET by the candidate.**
- **Check that this question paper contains 55 questions.**

# CLASS-XII

# SUB:COMPUTER SCIENCE (083)

**Time: 90 Minutes**                                    **Maximum Marks: 35**

**General Instructions:**

- *The question paper is divided into 3 Sections- A,B and C.*

- *Section A, consist of 25 Questions (1-25). Attempt any 20 questions.*

- *Section B, consist of 24 Questions (26-49). Attempt any 20 questions.*

- *Section C, consist of 6 case study based Questions (50-55). Attempt any 5 questions.*

- *All questions carry equal marks.*

| Q.N. | Section-A |
|------|-----------|
| | **This section consists of 25 Questions (1 to 25). Attempt any 20 questions from this section. Choose the best possible option.** |
| **Q1.** | Find the invalid identifier from the following: - <br><br> A. false <br><br> B. False <br><br> C. FALSE <br><br> D. FAlse |
| **Q2.** | Consider the following declaration List=('Python','Java','C++'). <br><br> Which of the following represent the data type of List? <br><br> A. list <br><br> B. tuple <br><br> C. dictionary <br><br> D. string |
| **Q3.** | Given the tuple L= (11,3,6,0,82,5,7,11,92), write the output of print (L [-2:-6]) <br><br> A. () <br><br> B. (82,5,7,11) <br><br> C. (0,82,5,7,11) <br><br> D. (11,7,5,82) |
| **Q.4** | What does the prefix r in front of a string which mentions the file path do? <br><br> A. It makes the string a raw string. <br><br> B. It opens the file in read mode. <br><br> C. It converts the file into text file. <br><br> D. It creates the file if it does not exist. |
| **Q5.** | What is the difference between r+ and w+ mode? <br><br> A. In r+ mode, file length truncates to zero. <br><br> B. In w+ mode, file length truncates to zero either file exists or not. <br><br> C. No difference. <br><br> D. Depends on the Operating System. |

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| **Q6.** | To read the next line of the file from a file object f1, we use: |
| | A. f1.read(2) |
| | B. f1.read() |
| | C. f1.readline() |
| | D. f1.readlines() |
| **Q7.** | A text file Myfile.txt is stored in the storage device. Identify the correct option out of the following to open the file in read mode: - |
| | A. ob=open('Myfile.txt','rb') |
| | B. ob=open('Myfile.txt','wr') |
| | C. ob=open('Myfile.txt','ar') |
| | D. ob=open('Myfile.txt') |
| **Q8.** | Which function is used to determine the datatype of a variable? |
| | A. type() |
| | B. id() |
| | C. print() |
| | D. eval() |
| **Q9.** | Which of the following is not a legal python string operation? |
| | A. 'abc'+'aba' |
| | B. 'abc'*3 |
| | C. 'abc'+3 |
| | D. 'abc'.lower() |
| **Q10.** | Consider two tuples given below: |
| | >>T1=(1,2,4,3) |
| | >>T2=(1,2,3,4) |
| | >>T1<T2 |
| | What will be the output? |
| | A. True |
| | B. False |
| | C. Error |
| | D. No Output |

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| **Q11.** | What is the function of 'rb' mode in a binary file? |
| | A. Both reading and writing operation can take place. |
| | B. File is in only write mode. |
| | C. File is created if it does not exist. |
| | D. File must exist otherwise error will be shown. |
| **Q12.** | Which of the following function is suitable to reposition the file pointer in a file? |
| | A. tell() |
| | B. flush() |
| | C. seek() |
| | D. find() |
| **Q13.** | Which method is used for object serialization? |
| | A. dump() |
| | B. load() |
| | C. pickling() |
| | D. unpickling() |
| **Q14.** | Which of the following statement is false with context to seek()? |
| | A. You can move the file pointer in forward direction. |
| | B. You can move the file pointer in backward direction. |
| | C. Backward movement of file pointer from BOF (Beginning Of File) is not allowed. |
| | D. Backward movement of file pointer from EOF (End Of File) is not allowed. |
| **Q15.** | Function that do not return any value is known as:- |
| | A. Fruitful function. |
| | B. Non fruitful function. |
| | C. non void function. |
| | D. Standard python function. |

| Q16. | `>>>def Interest(p,c,t=2,r=0.09):`<br>        `return p*t*r`<br><br>Considering the above defined function which of the following function call are legal.<br>   1. Interest(p=1000,c=5)<br>   2. Interest(r=0.05,5000,3)<br>   3. Interest(500,t=2,r=0.05)<br>   4. Interest(c=4,r=0.12,p=5000)<br><br>   A. 1,2 and 4.<br>   B. 2 and 3.<br>   C. 1 and 4.<br>   D. 3 and 4. |
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| Q17. | What are the variables defined inside a function referred to as?<br>   A. A global variable.<br>   B. A volatile variable.<br>   C. A local variable.<br>   D. A static variable. |
| Q18. | Which of the following file format stores records separated by comma?<br>   A. .tsv<br>   B. .py<br>   C. .bin<br>   D. .csv |
| Q19. | When you read a csv file using csv.reader() function it returns the values in _____ object.<br>   A. dictionary<br>   B. tuple<br>   C. nested list<br>   D. sets. |
| Q20. | Which of the following parameter needs to be added with open function to avoid blank row followed file each row in CSV file?<br>   A. delimiter.<br>   B. newline.<br>   C. writer, delimiter<br>   D. file object. |

| Q21. | Which function is used to write multiple rows into a csv file? |
|------|----------------------------------------------------------------|
|      | A. writerows() |
|      | B. writerow() |
|      | C. writer() |
|      | D. write() |
| Q22. | What is the smallest individual unit in a program? |
|      | A. Token. |
|      | B. Keyword. |
|      | C. Identifier. |
|      | D. Punctuator. |
| Q23. | Which of the following is known as membership operator in python? |
|      | A. if |
|      | B. break |
|      | C. not in |
|      | D. continue |
| Q24. | Assume that, a binary file Employee.dat contains the record of 10 employees. If you want to add another employee information E, into the file as 11$^{th}$ record, which of the following statement is correct? |
|      | A. with open('Employee.dat','w') as ob: |
|      |      i. pickle.dump(E,ob) |
|      | B. with open('Employee.dat','wb') as ob: |
|      |      i. pickle.dump(E,ob) |
|      | C. with open('Employee.dat','ab') as ob: |
|      |      i. pickle.dump(E,ob) |
|      | D. with open('Employee.dat','wb+') as ob: |
|      |      i. pickle.dump(E,ob) |
| Q25. | Which function returns key-value pair in a dictionary? |
|      | A. keys() |
|      | B. items() |
|      | C. values() |
|      | D. get() |

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| | **Section-B** |
| | **This section consists of 24 Questions (26 to 49). Attempt any 20 questions.** |
| **Q26.** | >>>t=(1,2,3,4)<br><br>Which of the following statement is correct to print to print the first three elements 3 times?<br><br>    A. print(t*3)<br><br>    B. print(t[:3]*3)<br><br>    C. print(t+t+t)<br><br>    D. print(t[1:4]*3) |
| **Q27.** | Find the output:-<br>       f=open(r"story.txt","r")<br>       for line in f:<br>           word=line.split()<br>           for i in word:<br>               for letter in i:<br>                   if letter.isdigit():<br>                     print(letter)<br>Assume, the content of file story.txt is: -<br><br>          &#124; DAV Public Schools. Term-1 Examination &#124;<br><br>    A. 1<br>    B. 2<br>    C. 3<br>    D. 4 |
| **Q28.** | If the list is created as:<br><br>l=[1,2,3,'a',['apple','green'],5,6,7,['red','orange']]<br><br>Then what will be the output of the following statements:<br><br>print(l[-5][-2])<br>    A. 'a'<br><br>    B. apple<br><br>    C. green<br><br>    D. ['apple','green'] |

| Q29. | How many times the following code will execute?<br><br>L=[10,20,30,40]<br><br>P=2<br><br>while P<L[-3]:<br><br>    print(P)<br><br>  P+=4<br><br>  A. 4<br><br>  B. 5<br><br>  C. 6<br><br>  D. Infinite Times. |
|---|---|
| Q30. | Identify the output of the following statement: -<br><br>for i in range(20):<br><br>i=i*2+4/2<br><br>print(i)<br><br><br>  A. 42.0<br><br>  B. 21.0<br><br>  C. 38.0<br><br>  D. 40.0 |
| Q31. | Identify the output of the following statement: -<br><br>L=['a','b','c']<br><br>L.extend(['d','e'])<br><br>L.insert(1,'f')<br><br>print(L[-2])<br><br><br>  A. ['d',’e’]<br><br>  B. c<br><br>  C. d<br><br>  D. Error in the code. |

| Q32. | Your friend Rishi wants to perform the following operations: - |
|------|----------------------------------------------------------------|

Q32. Your friend Rishi wants to perform the following operations: -

- Generate 5 random numbers between 1 to 50 (both the range are inclusive) and store it in a list.

- Write that list into a binary file named Random.dat.

He wrote the following code: -

```
import pickle
import random
Li=[]
for i in range(5):
Li.append(random.randrange(1,51)
ob=open("Random.dat","wb")
_____
ob.close()
```

How Rishi will use appropriate python statement to fill the blank space?

A. pickle.dump(Li,ob)

B. pickle.dump(ob,Li)

C. pickle.load(Li,ob)

D. pickle.load(ob,Li)

Q33. A binary file Fruit.dat has following data: -

| Id | Name | Price |
|-----|-----------|-------|
| F01 | Apple | 100 |
| F02 | Papaya | 50 |
| F03 | Blueberry | 250 |
| F04 | Pineapple | 120 |
| F05 | Guava | 70 |

The following code fragment is written by Arjun. He wants to change the price of the fruit whose Id is equal to the parameter passed to the function Find(). Write appropriate python statement in the blank line provided.

```
def Find(FN):
ob=open("Fruit.dat","rb+")
    try:
            while True:
pos=_____
rec=pickle.load(ob)
if FN==rec[0]:
ob.seek(pos)
rec[2]=float(input("Enter new price"))
pickle.dump(rec)
    except:
ob.close()
```

        A. pickle.tell()

        B. ob.tell()

        C. ob.tell(FN)

        D. ob.seek()

| | |
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| **Q34.** | What will be the output of the following python code? |

```
def cal(a,b,c):
return a*3,b*3,c*3
val=cal(10,12,14)
print(type(val))
```

        A. None

        B. list

        C. tuple

        D. int

| | |
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| **Q35.** | Evaluate the following expression and find the correct answer:- |

```
a,b,c=1,2,3
a//b**c+a-c*a
```

   A. -2

   B. -2.0

   C. 2.0

   D. None of the above

| | |
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| **Q36.** | What will be the output of the following code?<br><br>def say(message, times = 1):<br>print(message * times , end =' ')<br>print(say('Hello'), say('World', 2))<br><br>    A.  Hello WorldWorld<br><br>    B.  Hello WorldWorld None<br><br>    C.  Hello WorldWorldWorld None None<br><br>    D.  Hello WorldWorld None None |
| **Q37.** | What will be the output of the following code?<br><br>def add():<br>      x = 15<br>      def change():<br>            global x<br>            x = 20<br>      print(x,end=' ')<br>      change()<br>      print(x,end=' ')<br>add()<br>print(x)<br><br>    A.  15 20 20<br><br>    B.  20 15 20<br><br>    C.  15 15 20<br><br>    D.  Error in code. |
| **Q38.** | What will be the output of the following code?<br><br>from random import randint<br>LST=[5,10,15,20,25,30,35,40,45,50,60,70]<br>first = randint(3,8) – 1<br>second = randint(4,9) – 2<br>third = randint(6,11) – 3<br>print(LST[first],"#", LST[second],"#", LST[third],"#") |

| | A. 20#25#25# |
| | B. 30#40#70# |
| | C. 15#60#70# |
| | D. 35#40#60# |

| **Q39.** | What is the output of the following code snippet? |
| | |
| | ```
def Change(s,l):
     for i in range(l):
          s[i]=chr(ord(s[i])+2)
     return s
l=['D','A','V','P','S']
print(Change(l,len(l)))
``` |
| | |
| | A. ['D','A','V','P','S'] |
| | B. [DAVPS] |
| | C. ['FCXRU'] |
| | D. ['F', 'C', 'X', 'R', 'U'] |

| **Q40.** | Suppose the content of file "Story.txt" is: - |
| | |
| | Akbar was once infuriated with Birbal and banished him from his kingdom. Birbal travelled to a faraway village and assumed a new identity and started working as a farmer. After a couple of weeks, Akbar started to miss Birbal and hence asked his soldiers to find where he is and bring him back to the kingdom. |
| | |
| | What will be the output of the following code? |
| | |
| | ```
def count():
        f=open("Story.txt","r")
        lines=f.readlines()
        ct=0
        for w in lines:
                if w[0]=='A' or w[0]=='a':
                        ct+=1
        print(ct)
        f.close()
``` |

| | |
|---|---|
| | A. 1 <br> B. 2 <br> C. 3 <br> D. 4 |
| **Q41.** | Find the output of the following code: - <br><br> ```python<br>def Display(str):<br>    m=""<br>    for i in range(0,len(str)):<br>            if(str[i].isupper()):<br>                m=m+str[i].lower()<br>    elif str[i].islower():<br>                m=m+str[i].upper()<br>            else:<br>                if i%2==0:<br>                    m=m+str[i-1]<br>                else:<br>                    m=m+"#"<br>    print(m)<br>Display('Fun@Python3.0')<br>```<br><br> A. fUN#pYTHONn# <br> B. fUN#pYTHONn <br> C. fUN#pYTHONn#. <br> D. fUN#pYTHON |
| **Q42.** | Suppose the content of file "Story.txt" is: - <br><br> <div style="border:1px solid">Time and tide wait for none.</div> <br><br> What will be the output of the following code? <br><br> ```python<br>ob=open("Story.txt","r")<br>x=ob.read()<br>y=ob.readline()<br>if x==y:<br>   print("Success")<br>else:<br>   print("Fail")<br>``` |

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| | A. Success<br>B. Fail<br>C. Error in code<br>D. No output |
| **Q43.** | Suppose the content of file "Story.txt" is: -<br><br>Success is not the key to happiness.<br>Happiness is the key to success.<br>If you love what you are doing, you will be successful.<br><br>What will be the output of the following code?<br><br>ob=open("Story.txt","r")<br><br>st=ob.readlines()<br><br>print(len(st))<br><br>ob.close()<br><br>A. 1<br>B. 2<br>C. 3<br>D. 4 |
| **Q44.** | What will be the output of the following code?<br><br>num=5<br><br>def myfunc():<br><br>    global num<br><br>    num=100<br><br>    return num<br><br>print(num,myfunc(),num)<br><br>A. 5  100  100<br><br>B. 5  5  100<br><br>C. 5  100  5<br><br>D. 100  100  5 |

| Q45. | Suppose the content of file "Story.txt" is: - |
|---|---|
| | The Purpose Of Our Life Is To Be Happy. |
| | What will be the output of the following code? |
| | ```
ob=open("Story.txt","r")
st=ob.read()
temp="
for i in st:
    if i.isupper():
        temp=temp+i.lower()
print(temp)
``` |
| | A. The Purpose Of Our Life Is To Be Happy. <br> B. tpolitbh <br> C. Error in the code. <br> D. tpoolitbh |
| Q46. | Suppose the content of file "Story.txt" is: - |
| | Pinaky has gone to his friend's house. <br> His friend's name is Ravya. <br> Her house is 12 km from Pinaky's house. |
| | What will be the output of the following code? <br> ```
ob=open("Story.txt","r")
e=u=0
while True:
    l=ob.readlines()
    if not l:
        break
    for i in l:
        if i[0]=='H' or i[0]=='h':
            e+=1
elifi[0]=='U' or i[0]=='u':
            u+=1
print(e,u)
ob.close()
``` |

| | |
|---|---|
| | A. 0  0 |
| | B. 2  0 |
| | C. 0  2 |
| | D. None of these. |
| **Q47.** | Shital wants to open a file named Story.txt which is present inside Novel folder and Novel folder is present in D drive. Write the correct absolute path for the file.<br><br>A. D\Novel\Story.txt<br><br>B. D:\Novel\Story.txt<br><br>C. D:\Novel.Story.txt<br><br>D. D\Novel:\Story.txt |
| **Q48.** | Suppose the content of file "Story.txt" is: -<br><br>Nothing in life is to be feared, it is only to be understood.<br>Now is the time to understand more, so that we may fear less.<br><br>What is the output of the following code?<br><br>ob=open("Story.txt","r")<br>print(type(ob.readline()))<br>ob.close()<br>    A. str<br>    B. list<br>    C. tuple<br>    D. dict |
| **Q49.** | What is the output of the following code?<br>L1=[2,5,(1,8),3]<br>L2=[6,5]<br>L2.extend(L1+[max(L2)])<br>print(L2)<br><br>    A. [[6, 5], 2, 5, (1, 8), 3, 6]<br>    B. [6, 5, 2, 5, (1, 8), [3, 6]]<br>    C. [6, 5, 2, 5, 1, 8, 3, 6]<br>    D. [6, 5, 2, 5, (1, 8), 3, 6] |

| | Section-C |
|---|---|
| | **Case Study Based Questions** |
| | **This section consists of 6 Questions (50 to 55). Attempt any 5 questions.** |
| **Q50.** | Mr. Satyam is a programmer, who has recently been given a task to write a python code to perform the following CSV file operations with the help of two user defined functions/ modules.

- CSVOpen(): to create a CSV file called BOOKS.CSV in append mode containing information of books-Title, Author and Price.
- CSVRead(): to display the records from the CSV file called BOOKS.CSV where the field title starts with 'R'.

He has succeeded in writing partial code and has missed out certain statements, so he has left certain queries in comment lines.

```
import _____                                    #statement 1
def CSVOpen():
    with open('BOOKS.CSV','_____',newline='') as csvf:    #statement 2
cw=_____                                    #statement 3
            _____                     #statement 4
cw.writerow(['Rapunzel','Jack',300])
cw.writerow(['Barbie','Doll',900])
cw.writerow(['Johny','Jane',280])
def CSVRead():
    try:
            with open('BOOKS.CSV','r') as csvf:
cr=_____                                     #statement 5
                for r in cr:
                    if _____:              #statement 6
                      print(r)
    except:
print("File not Found")


CSVOpen()
CSVRead()
```

You as an expert of Python have to provide the missing statements and other related queries based on the following code of Satyam. |

| Q50 | Identify the suitable code for blank space in the line marked as Statement-1. |
|------|--------|
| | A. csvfile |
| | B. csv |
| | C. CSV |
| | D. cvs |
| Q51 | Choose the appropriate mode in which the file is to be opened in append mode (Statement 2). |
| | A. w+ |
| | B. ab+ |
| | C. r+ |
| | D. a |
| Q52 | Which statement will be used to create a csv writer object in Statement 3? |
| | A. csv.writer(csvf) |
| | B. csv.write(csvf) |
| | C. csvf.writer() |
| | D. csvf.writer(csv) |
| Q53 | Choose the correct option for Statement 4 to write the names of column heading in the CSV file BOOKS.CSV. |
| | A. cw.writerow('Title','Author','Price') |
| | B. cw.writerow(['Title','Author','Price']) |
| | C. cw.writerows('Title','Author','Price') |
| | D. cw.writerows(['Title','Author','Price']) |
| Q54 | Which statement will be used to read a CSV file in Statement 5? |
| | A. cs.read(csvf) |
| | B. csv.reader(csvf) |
| | C. csvf.read() |
| | D. csvf.reader(cs) |
| Q55 | Fill the appropriate statement to check the field Title starting with 'R' for Statement 6in the above program. |
| | A. r[0][0]='R' |
| | B. r[1][0]='R' |
| | C. r[0][1]='R' |
| | D. r[1][1]='R' |