OSDAV Public School, Kaithal
May Unit Test (2025-26)
Class :XII

SET-A

Subject : Computer Science

Time: 1.5 Hrs .   **M.M. : 35**

General Instructions:-
   I.   **All questions are compulsory.**

Q.N.	Questions	Marks
1	To read the entire remaining contents of the file as a string from a file object myfile, we use a) myfile.read(2) b) myfile.read() c) myfile.readline() d) myfile.readlines()	1
2	Which statement will be used to read a csv file in Statement 4. a. cs.read(csvf) b. csv.reader(csvf) c. csvf.read() d. csvf.reader(cs)	1
3	Which of the following commands is used to read each record from the binary file STUDENT.DAT? a. R = pickle.load(F) b. pickle.read(r,f) c. r= pickle.read(f) d. pickle.load(r,f)	1
4	Write the output of the code given below : dict1={1: ["Rohit", 20], 2: ["Siya", 90]} dict2={2: ["Rahul", 95], 5: ["Rajan" , 80]} dict.update (dict2) print (dictl. values ()) dict_values([['Rohit', 20], ['Rahul', 95], ['Rajan', 80]])	1

5	Which of the following function calls can be used to invoke the below function definition ?
	def test(a, b, c, d)
	    1. test(1, 2, 3, 4)
	    2. test(a = 1, 2, 3, 4)
	    3. test(a = 1, b = 2, c = 3, 4)
	    4. test(a = 1, b = 2, c = 3, d = 4)
		1

6	Identify the statement with an error in the code given below::
	str= "Atal Innovation Mission" #statement 1
	x= "3" #statement 2
	print(str*x) #statement 3
	print(str+3) #statement 4
	a) statement 1
	b) statement 2
	c) statement 3
	d) statement 4
		1

7	a)To display the number of occurrences of the substring "is" in a string named **message.** For example if the string message contains "This is his book", then the output will be 3.=>message.count("is") **b)** Given is a Python string declaration : NAME = "Python is very Easy" Write the output of : print (NAME [-5: -10: -1] yrev	2
8	What possible output(s) are expected to be displayed on screen at the time of execution of the following program : import random M= [5, 10,15,20,25, 30]	2

	for i in range (1,3) :
	    first=random. randint (2,5) - 1
	    sec=random. randint (3, 6) – 2
	    third=random. randint (1,4)
	    print (M[first],M[sec],M[third], sep="#")
	(i)10#25#15 (ii) 5#25#20
	  20#25#25 25#20#15
	(iii) 30#20#20 (iv) 10#15#25#
	  20#25#25 15#20#10#	

9	What is the advantage of using with Clause while opening a data file in python also give syntax of with clause It ensures that the file is properly closed after its operations are completed, even if exceptions occur. This automatic closing mechanism prevents resource leaks and potential data corruption. **with open("filename.dat","mode")as f**	2

10	What is the main purpose of seek and tell method?
	The seek() method allows the programmer to move the file pointer to a specific location within the file, enabling random access to different parts of the file. The tell() method, on the other hand, returns the current position of the file pointer, measured in bytes from the beginning of the file.
	example
	  with open("example.txt", "r") as file:
	  print(file.tell()) # Output: 0 (start of the file)
	  file.seek(5) # Move the pointer to the 6th byte
	  print(file.tell()) # Output: 5
	  content = file.read(10) # Read 10 bytes
	  print(content)
	  print(file.tell()) # Output: 15
		2

11	Find output
	def fun1(x, y):
	    x = x + y
	    y = x – y
	    x = x – y
	    print('a =',x)
	    print('b =',y)
	  a = 5
	  b = 3
	  fun1(a,b)
	  print(a,b)
	a=3
	b=5
	3 5
		2

12	What are the errors in following codes ? Correct the code and predict output :
	#Method to find Total
	def Tot(Number)
	  Sum = 0
	  for C in Range (1, Number + 1)
	    Sum += C
	    RETURN Sum
	print (Tot[3]) #Function Calls
	print (Tot[6])
	6
	21
		2

13	a) **Assertion.** Non-default arguments cannot follow default arguments in a function call.
	        Reason. A function call can have different types of arguments.
	      A and R both true and r is not correct explanation of A
		2

	b)	**Assertion.** A parameter having a default in function header becomes optional in function call. **Reason.** A function call may or may not have values for default arguments. A and R both true and r is correct explanation of A	

14		Write the function, count_words in python to count words starting with digit in a text file "details.txt"
		def count_words():
		   count = 0
		   try:
		      with open("details.txt", "r") as file:
		         for line in file:
		            words = line.split()
		            for word in words:
		               if word and word[0].isdigit():
		                  count += 1
		      print("Number of words starting with a digit:", count)
		   except FileNotFoundError:
		   print("File 'details.txt' not found.")
			3

15		Write the output of the code given below:
		def short_sub(lst, n):
		   for i in range(n):
		      if len(lst) > 4:
		         lst[i] = lst[i] + lst[i]
		      else:
		         lst[i] = lst[i]
		subject = ['CS', 'HINDI', 'PHYSICS', 'CHEMISTRY', 'MATHS']
		short_sub(subject, 5)
		print(subject)
		['CSCS', 'HINDIHINDI', 'PHYSICSPHYSICS', 'CHEMISTRYCHEMISTRY', 'MATHSMATHS']
			3

16		a)Write the function, add_conent() in csv file named as employee .csv in form of list where each employee consists of [Empid,name,Salary].
		
		b)Write a user defined function name as showcontent() and display detail that would read the content of CSV File name as employee.csv and display detail of those employees whose salary is below 25,000.
		def add_conent():
		   with open('employee.csv', mode='a',) as file:
		   writer = csv.writer(file)
		   for a in range(5):
		       emp_id = input('Enter Employee ID: ')
		       name = input('Enter Employee Name: ')
		       salary = input('Enter Employee Salary: ')
		       writer.writerow([emp_id, name, salary])
		  print(" 5'Employee records added successfully.')
		
		def showcontent():
		   with open('record.csv', mode='r') as file:
		      reader = csv.reader(file)
		      for a in reader:
		         if a[2]<25000:
		            print(a)
			3
			
			2

17		Write a python function named as changename to modify the name of student in student .dat whose rollno is "12".(data is given in form of dictionary) import pickle def changename(new_name):	4

```python
updated = False
students = {}
# Read all student records from the file
 with open("student.dat", "rb") as file:
     while True:
          pos=f.tell()
          student = pickle.load(file)
          if student["rollno"]== "12":
              student["name"] = new_name
              file.seek(pos)
     pickle.dump(student, file)
if updated:
   print("Name updated successfully.")
else:
   print("Student with rollno '12' not found.")
```

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General Instructions:-

I.   **All questions are compulsory.**

Q.N.	Questions	Marks
1	Which of the following statement(s) are correct regarding the file access modes? • 'r+' opens a file for both reading and writing. File object points to its beginning. • 'w+' opens a file for both writing and reading. Adds at the end of the existing file if it exists and creates a new one if it does not exist. • 'wb' opens a file for reading and writing in binary format. Overwrites the file if it exists and creates a new one if it does not exist. • 'a' opens a file for appending. The file pointer is at the start of the file if the file exists.	1
2	Which statement will be used to read a csv file . 1. cs.read(csvf) 2.csv.reader(csvf) 3.csvf.read() 4. csvf.reader(cs)	1
3	Which of the following statements correctly explain the function of seek() method? • tells the current position within the file. • determines if you can move the file position or not. • indicates that the next read or write occurs from that position in a file. • moves the current file position to a given specified position	1

4	Which of the following function headers is correct ?
	    1. def f(a = 1, b): 3. def f(a = 1, b, c = 2):
	    2. def f(a = 1, b = 1, c = 2): 4. def f(a = 1, b = 1, c = 2, d):
		1

5	To remove the item whose key is "XYZ" from a dictionary named Students. For example, if the dictionary named Students contains {"ABC" :90, "XYZ": 76, "STU" :92}, then after removal the dictionary should contain {"ABC" : 90, "STU" : 92} **students.pop("XYZ")**	1

6	Identify the statement with an error in the code given below::
	str= "Atal Innovation Mission" #statement 1
	x= "3" #statement 2
	print(str*x) #statement 3
	print(str+3) #statement 4
	a) statement 1 b) statement 2 c) statement 3 d) statement 4
		1

7	**a.)** Given is a Python string declaration :
	    NAME = "Learning Python is Fun"
	    Write the output of : print (NAME [-5: -15: -2]=>s otp
	b) Write the output of the code given below :
	    dict1={1: ["Rohit", 20], 2: ["Siya", 90]}
	    dict2={1: ["Rahul", 95], 5: ["Rajan" , 80]}
	    dict.update (dict2)
	    print (dictl. values ())
	dict_values([['Rahul', 95], ['Siya', 90], ['Rajan', 80]])
		2

8	What possible output(s) are expected to be displayed on screen at the time of execution of the following code ?
	import random
	S= ["Pen", "Pencil", "Eraser", "Bag", "Book"]
	for i in range (1,2):
	        f=random. randint (1,3)
	        s=random. randint (i+1, 4)
	        print (S[f],S[s], sep=":")
	Options:
	(I) Pencil: Book (II) Pencil: Book (III) Pen: Book (IV) Bag: Eraser
	                             Eraser: Bag Bag: Book
		2

9	What is the main purpose of seek and tell method?
	The seek() method allows the programmer to move the file pointer to a specific location within the file, enabling random access to different parts of the file. The tell() method, on the other hand, returns the current position of the file pointer, measured in bytes from the beginning of the file.
	example
	   with open("example.txt", "r") as file:
	   print(file.tell()) # Output: 0 (start of the file)
	   file.seek(5) # Move the pointer to the 6th byte
	   print(file.tell()) # Output: 5
	   content = file.read(10) # Read 10 bytes
	   print(content)
	   print(file.tell()) # Output: 15
		2	

10	**What are the errors in following codes ? Correct the code and predict output :**
	total = 0;
	   def sum(arg1, arg2):
	      total = arg1 + arg2;
	      print("Total :", total)
	return total;
	sum(10, 20);
	print("Total :", total)
	Total:30
	Total:0
		2	

11	What is the advantage of using with Clause while opening a data file in python also give syntax of with clause It ensures that the file is properly closed after its operations are completed, even if exceptions occur. This automatic closing mechanism prevents resource leaks and potential data corruption. **with open("filename.dat","mode")as f**	2	

12	a) **Assertion.** Non-default arguments cannot follow default arguments in a function call.
	
	      Reason. A function call can have different types of arguments.
	   A and R both true and r is not correct explanation of A
	   b) **Assertion.** A parameter having a default in function header becomes optional in function call.
	      Reason. A function call may or may not have values for default arguments.
	   A and R both true and r is correct explanation of A
		2	

13	Find output
	def fun1(x, y):
	   x = x + y
	   y = x − y
	   x = x − y
	   print('a =',x)
	   print('b =',y)
	  a = 5
	  b = 3
	  fun1(a,b)
	  print(a,b)
	a = 3
	b = 5
	5 3
		2	

14	Write a function **reversedata** to read a text file "input.txt" and print the words starting with O in reverse order. The rest of content is displayed normally.
	def reversedata():
	  try:
	    with open("input.txt", "r") as file:
	      for line in file:
		3	

| | ```
            words = line.split()
            result = []
            for word in words:
                if word.startswith("O"):
                    print(word[::-1])
                else:
                    print(word)


    except FileNotFoundError:
        print("File 'input.txt' not found.")
``` | |
| 15 | Write a user defined function name as showcontent() and display detail that would read the content of CSV File name as employee.csv and display detail of those employees whose salary is below 25,000.<br><br>```
import csv
def showcontent():
        with open("employee.csv", newline='') as file:
        reader = csv.DictReader(file)
        for row in reader:
                if row["salary"] < 25000:
                print(row)
``` | 3 |
| 16 | a)Write the output of the code given below:<br><br>```
def short_sub(lst, n):
    for i in range(n):
       if len(lst) > 4:
          lst[i] = lst[i] + lst[i]
       else:
          lst[i] = lst[i]
subject = ['BST', 'ECONOMICS', 'ACCOUNTS', 'MATHS','ENGLISH']
short_sub(subject, 5)
print(subject)
```<br>['BSTBST', 'ECONOMICS ECONOMICS ', 'ACCOUNTS ACCOUNTS ', 'MATHSMATHS','ENGLISHENGLISH']<br><br>   c)  Write the function, count_words in python to count words ending with a digit in a text file "details.txt"<br><br>```
def count_words():
   count = 0
     with open("details.txt", "r") as file:
        for line in file:
           words = line.split()
           for word in words:
               if word and word[-1].isdigit():
                   count += 1
     print("Number of words starting with a digit:", count)
``` | 3<br><br><br><br><br><br><br><br><br><br><br>2 |
| 17 | Write a python function named as changemarks() to modify the marks of student by increasing it by 5 in student .dat whose rollno is "12".(data is given in form of list)<br><br>```
import pickle

def changemarks():
   updated = False
   students = []
   with open("student.dat", "rb") as file:
        while True:
            pos=file.tell()
            students = pickle.load(file)
   # Step 2: Modify marks for rollno '12'
   for student in students:
``` | 4 |

```python
            if student["rollno"] == "12":
                student["marks"] += 5
                updated = True
                file.seek(pos)
                pickle.dump(students, file)

    # Step 4: Inform the user
    if updated:
        print("Marks updated successfully.")
    else:
        print("Student with rollno '12' not found.")
```