OSDAV Public School, Kaithal
Second Unit Test (July,2024)
Class :XII
Subject :Computer Science

SET-A

Time: 1 hr 30 min. **M.M. : 35**

General Instructions:-

I. **All questions are compulsory.**
II. **This Paper contains 4 sections**
- **A) Consist 5 question carring 1 mark each**
- **B) Consist 5 questions carrying 2 Marks each**
- **C) Consist 4 questions carrying 3 Marks each**
- **D) Consist 2 questions carrying 4 Marks each**

Q.No.	Questions	Marks
	Section A(1X5=5)	
1	Consider the statements given below and then choose the correct output from the given options : myStr="MISSISSIPPI" print (myStr [: 4] +"#"+myStr [-5 :]) (a) MISSI#SIPPI (b) MISS#SIPPI (c) MISS#IPPIS (d)MISSI#IPPIS	**1**
2	Which of the following commands can be used to read 8 characters from a text file using the file object F1? a. F1.read(8) b. N = F1.read() c. F1.readline(8) d. F1.readlines(8)	**1**
3	Select the correct output of the code: a = "Year 2022 at All the best” a = a.split('2') b = a[0] + ". " + a[1] + ". " + a[3] print (b) (a) Year . 0. at All the best (b) Ye. r 2022 . t All the best (c) Year . 022. at All the best (d) Year . 0. at all the best	**1**

4	Which of the following statement(s) would give an error after executing the following code?
	justify
	S={“murugan":100,”Mithu”:95} # Statement 1
	print(S[95]) # Statement 2
	S[murugan]=95 # Statement 3
	print(s.pop()) # Statement 4
	print(S) # Statement 5
	(a) Statement 3 (b) Statement 4 (c) Statement 2(d) Statement 4 and 5
		1

5	What is the value of the following expression? 3+3.00,3**3.0	**1**
	Section B(2X5=10)	
6	Carefully observe the code and give the output: def example(a): a = a + '2' a = a*2 print(a) example("hello")	**1+1**

7	(a) Given is a Python string declaration: myexam="@@Atal Tinkering lab 2024@@" Write the output of: print(myexam[::-2]) (b) Write the output of the code given below: my_dict = {"name": "Aman", "age": 26} my_dict['name'] = "Raman" my_dict['address'] = "Delhi" print(my_dict.items())	**1+1**
8	Write a code to print the lastline of a text file	**2**
9	Write a function INDEX_LIST(L), where L is the list of elements passed as argument to the function. The function will make named L1 that will contain all multiples of 3 For example: If L contains [12,4,2,9,3,56] The L1 will have - [12,9,3]	**2**

10	What possible outputs(s) are expected to be displayed on screen at the time of execution of the program from the following code? Also specify the maximum values that can be assigned to each of the variable NUMBER
	import random
	`STRING="CBSEONLINE"`
	`NUMBER = random.randint (0, 3)`
	`N=9`
	`while STRING[N] != "L":`
	`print (STRING[N] + STRING[NUMBER] + "#", end =`
	`NUMBER = NUMBER +1`
	`N=N-1`
	(i) ES#NE#IO# (ii) LE#NO#ON# (iii) NS#IE#LO# (iv) EC#NB#IS#
		2

	Section C(3x4=12)	
11	**Find output** def change(p,q=30): P=P+Q Q=P-Q print(P,"#",Q) return(P) R=150 S=100 R=change(R,S) print(R,"#",S) S=change(S)	**3**
12	Convert X:A+(B*C-(D/E^F)*G)*H infix into post fix using stack	**3**
13	Write a function in python Bubble sort(Arr,n) to sort a list Arr having n number of elements	**3**
14	Write a method COUNTLINES() in Python to read lines from text file 'TESTFILE.TXT' and display the lines which are not starting with any vowel.	**3**
	Section D(4x2=8)	
15	Write a function in python, Push(X) and Pop(X) to add a new element x and delete an element from a List of Package Description, considering them to act as push and pop operations of the Stack data structure	**4**
16	A binary file "Student.DAT" has structure (admission_number, Name, Percentage). Write a function countrec() in Python that would read contents of the file "STUDENT.DAT" and display the details of those students whose percentage is above 75. Also display number of students scoring above 75%	**4**

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- **D) Consist 2 questions carrying 4 Marks each**

Q.No.	Questions	Marks
	Section A(1X5=5)	
1	Consider the statements given below and then choose the correct output from the given options : myStr="MISSISSIPPI" print (myStr [: 4] +"#"+myStr [-5 :]) (b) MISS#SIPPI	1
2	Which of the following commands can be used to read 8 characters from a text file using the file object F1? a. F1.read(8)	1
3	Select the correct output of the code: a = "Year 2022 at All the best” a = a.split('2') b = a[0] + ". " + a[1] + ". " + a[3] print (b) (a) Year . 0. at All the best	1

4	Which of the following statement(s) would give an error after executing the following code?
	justify
	S={“murugan":100,”Mithu”:95} # Statement 1
	print(S[95]) # Statement 2
	S[murugan]=95 # Statement 3
	print(s.pop()) # Statement 4
	print(S) # Statement 5
	(b) Statement 4 (c) Statement 2
		1

5	What is the value of the following expression? 3+3.00,3**3.0=>6.0,27.0	1
	Section B(2X5=10)	
6	Carefully observe the code and give the output: def example(a): a = a + '2' a = a*2 print(a) example("hello") hello2hello2	1+1
7	(a) Given is a Python string declaration: myexam="@@Atal Tinkering lab 2024@@" Write the output of: print(myexam[::-2]) @40 a nrki AA@ (b) Write the output of the code given below:	1+1

	my_dict = {"name": "Aman", "age": 26} my_dict['name'] = “Raman” my_dict['address'] = "Delhi" print(my_dict.items()) = {"name": "Raman", "age": 26,”address”,”delhi”}	
8	Write a code to print the lastline of a text file F=open(“story.txt”,”r”) Str=f.readlines() print(str([-1])	**2**
9	Write a function INDEX_LIST(L), where L is the list of elements passed as argument to the function. The function will make named L1 that will contain all multiples of 3 For example: If L contains [12,4,2,9,3,56] The L1 will have - [12,9,3] **def INDEX_LIST(L):** **l1=[]** **for I in l:** **if i%3==0:** **l1.append(i)** **print(L1)**	**2**

10	What possible outputs(s) are expected to be displayed on screen at the time of execution of the program from the following code? Also specify the maximum values that can be assigned to each of the variable NUMBER
	import random
	`STRING="CBSEONLINE"`
	`NUMBER = random.randint (0, 3)`
	`N=9`
	`while STRING[N] != "L":`
	`print (STRING[N] + STRING[NUMBER] + "#", end =`
	`NUMBER = NUMBER +1`
	`N=N-1`
	(i) ES#NE#IO# (iv) EC#NB#IS#
	Number (max)=3
		2

	Section C(3x4=12)	
11	**Find output** def change(p,q=30): P=P+Q Q=P-Q print(P,”#”,Q) return(P) R=150 S=100 R=change(R,S) print(R,”#”,S) S=change(S) 250#150 250#100 130#100	**3**
12	Convert X:A+(B*C-(D/E^F)*G)*H infix into post fix using stack ABC*DEF^/G*-H*+	**3**
13	Write a function in python Bubble sort(Arr,n) to sort a list Arr having n number of elements	**3**

	Def bubblesort(arr,n): **for a in range (n):** **for b in range(1,n-1,a):** **if arr{b]>arr[b+1]:** **arr[b],arr[b+1]= arr[b+1],arr[b]** **print(arr)**	

14	Write a method COUNTLINES() in Python to read lines from text file 'TESTFILE.TXT' and display the lines which are not starting with any vowel.
	def countlines():
	F=open("TESTFILE.txt","r")
	Str=f.readlines()
	for a in str:
	if a[0] not in "aeiouAEIOU":
	print(c)
		3

	Section D(4x2=8)	

15	Write a function in python, Push(X) and Pop(X) to add a new element x and delete an element from a List of Package Description, considering them to act as push and pop operations of the Stack data structure
	max=11
	def Push(X):
	if len(l)==max:
	print("overflow")
	else:
	l.append(x)
	def Pop():
	if len(l)==0:
	print("underflow")
	else:
	l.pop()
		4

16	A binary file "Student.DAT" has structure (admission_number, Name, Percentage). Write a function countrec() in Python that would read contents of the file "STUDENT.DAT" and display the details of those students whose percentage is above 75. Also display number of students scoring above 75% **import pickle** **def countrec():** **fobj=open("student.dat","rb")** **num = 0** **try:** **while True:** **rec=pickle.load(fobj)** **if rec[2]>75:** **num = num + 1** **print(rec[0],rec[1],rec[2])** **except:** **fobj.close()** **return num**	**4**

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SET-B

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- **C) Consist 4 questions carrying 3 Marks each**
- **D) Consist 2 questions carrying 4 Marks each**

Q.No.	Questions	Marks
	Section A(1X5=5)	
1	Consider the statements given below and then choose the correct output from the given options : myStr="MISSISSIPPI" print (myStr [-4:] +"#"+myStr [:3]) (a) MISSI#SIPP (b) IPPI#mis (c) MISS#IPPI (d)MISSI#IPPIS	**1**
2	Given the following dictionaries dict_exam={"Exam":"AISSCE", "Year":2023} dict_result={"Total":500, "Pass_Marks":165} Which statement will merge the contents of both dictionaries? a. dict_exam.update(dict_result) b. dict_exam + dict_result c. dict_exam.add(dict_result) d. dict_exam.merge(dict_result)	**1**
3	Select the correct output of the code: a = "Year 2022 at All the best” a = a.split('a') b = a[0] + ". " + a[1] + ". " + a[2] print (b) (a) Year . 0. at All the best (b) Ye. r 2022 . t All the best (c) Year . 022. at All the best (d) Year . 0. at all the best	**1**

4	Which of the following statement(s) would give an error after executing the following code? S="Welcome to class XII" # Statement 1
	print(S) # Statement 2
	S="Thank you" # Statement 3
	S[0]= '@' # Statement 4
	S=S*"Thank you" # Statement 5
	(a) Statement 3 (b) Statement 4 (c) Statement 5 (d) Statement 4 and 5
		1

5	Identify the valid declaration of L: L = 1, 23, ‘hi’, 6 (i) list (ii) dictionary (iii) array (iv) tuple	**1**
	Section B(2X5=10)	
6	(a) Given is a Python string declaration: myexam="@@Computer Club 2024@@" Write the output of: print(myexam[::-2]) (b) Write the output of the code given below: my_dict = {"name": "Aman", "age": 26} my_dict['name'] = “Raman” my_dict['address'] = "Delhi" print(my_dict.items())	**1+1**

7	Write a code to print the last 2nd line of a text file	**2**
8	Evaluate the following expressions: a) 2** 3 + 4*2 / 5 – 8 b) not 10 > 5 and 7 > 12 or 18 > 3	**2**
9	Write a function INDEX_LIST(L), where L is the list of elements passed as argument to the function. The function will make named L1 that will contain only those elements whose unit place is 0. For example: If L contains [120,4,12,90,3,56] The L1 will have - [120,90]	**2**

10	What possible outputs(s) are expected to be displayed on screen at the time of execution of the program from the following code? Also specify the maximum values that can be assigned to each of the variable NUMBER
	import random
	`STRING="CBSEONLINE"`
	`NUMBER = random.randint (0, 3)`
	`N=9`
	`while STRING[N] != "L":`
	`print (STRING[N] + STRING[NUMBER] + "#", end =`
	`NUMBER = NUMBER +1`
	`N=N-1`
	(i) ES#NE#IO# (ii) LE#NO#ON# (iii) NS#IE#LO# (iv) EC#NB#IS#
		2

	Section C(3x4=12)	
11	def change(p=100,q=30): P=P+Q Q=P-Q print(P,"#",Q) return(P) R=250 S=150 R=change(R,S) print(R,"#",S) S=change( )	**3**
12	Evaluate the following postfix using stack,show contents of stack at every step 30,5,2,**,12,6,/,+,-	**3**
13	Write a function in python Bubble sort(Arr,n) to sort a list Arr having n number of elements	**3**
14	Write a method COUNTLINES() in Python to read lines from text file 'TESTFILE.TXT' and display the lines which are starting with any vowel.	**3**
	Section D(4x2=8)	
15	Write a function in python, MakePush(Package) and MakePop(Package) to add a new Package and delete a Package from a List of Package Description, considering them to act as push and pop operations of the Stack data structure	**4**
16	i)What is the advantage of using with clause while opening a data file in Python.Also give syntax of with clause ii)A binary file "emp.dat" has structure EID, Ename, name, salary. Write a function display() ,that would read contents of file and display the detail of all employees whose salary is below 50000.	**1+3**

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Q.No.	Questions	Marks
	Section A(1X5=5)	
1	Consider the statements given below and then choose the correct output from the given options : myStr="MISSISSIPPI" print (myStr [-4:] +"#"+myStr [:3]) (b) IPPI#MIS	**1**
2	Given the following dictionaries dict_exam={"Exam":"AISSCE", "Year":2023} dict_result={"Total":500, "Pass_Marks":165} Which statement will merge the contents of both dictionaries? a. dict_exam.update(dict_result)	**1**
3	Select the correct output of the code: a = "Year 2022 at All the best" a = a.split('a') b = a[0] + ". " + a[1] + ". " + a[2] print (b) (b) Ye. r 2022 . t All the best	**1**

4	Which of the following statement(s) would give an error after executing the following code? S="Welcome to class XII" # Statement 1
	print(S) # Statement 2
	S="Thank you" # Statement 3
	S[0]= '@' # Statement 4
	S=S*"Thank you" # Statement 5
	(d) Statement 4 and 5
		1

5	Identify the valid declaration of L: L = 1, 23, 'hi', 6 (iv) tuple	**1**
	Section B(2X5=10)	
6	(a) Given is a Python string declaration: myexam="@@Computer Club 2024@@" Write the output of: print(myexam[::-2]) (b) Write the output of the code given below: {"name": "Raman", "address":"Delhi","age": 26}	**1+1**
7	Write a code to print the last 2nd line of a text file F=open("story.txt","r") Str=f.readlines() print(str([-2])	**2**
8	Evaluate the following expressions:	**2**

	a) 2** 3 + 4*2 / 5 – 8 =>1.6 b) not 10 > 5 and 7 > 12 or 18 > 3=> True	
9	Write a function INDEX_LIST(L), where L is the list of elements passed as argument to the function. The function will make named L1 that will contain only those elements whose unit place is 0. For example: If L contains [120,4,12,90,3,56] The L1 will have - [120,90] **def INDEX_LIST(L):** **l1=[]** **for I in l:** **if i%10==0:** **l1.append(i)** **print(L1)**	**2**

10	What possible outputs(s) are expected to be displayed on screen at the time of execution of the program from the following code? Also specify the maximum values that can be assigned to each of the variable NUMBER
	import random
	`STRING="CBSEONLINE"`
	`NUMBER = random.randint (0, 3)`
	`N=9`
	`while STRING[N] != "L":`
	`print (STRING[N] + STRING[NUMBER] + "#", end =`
	`NUMBER = NUMBER +1`
	`N=N-1`
	(i) ES#NE#IO# (iv)EC#NB#IS#
	Max value of number =3
		2

	Section C(3x4=12)	
11	def change(p=100,q=30): P=P+Q Q=P-Q print(P,"#",Q) return(P) R=250 S=150 R=change(R,S) print(R,"#",S) S=change( ) **400#250** **400#150** **130#100**	**3**
12	Evaluate the following postfix using stack,show contents of stack at every step 30,5,2,**,12,6,/,+,- Step1 30,5,2,** Step2 30,25,12,6,/ Step 3 30,25,2+ Step 4 30,27- Step 5 3 Ans	**3**
13	Write a function in python Bubble sort(Arr,n) to sort a list Arr having n number of elements	**3**

	Def bubblesort(arr,n): **for a in range (n):** **for b in range(1,n-1,a):** **if arr{b]>arr[b+1]:** **arr[b],arr[b+1]= arr[b+1],arr[b]** **print(arr)**	

14	Write a method COUNTLINES() in Python to read lines from text file 'TESTFILE.TXT' and display the lines which are starting with any vowel.
	def countlines():
	F=open("TESTFILE.txt","r")
	Str=f.readlines()
	for a in str:
	if a[0] in "aeiouAEIOU":
	print(c)
		3

	Section D(4x2=8)	

15	Write a function in python, MakePush(Package) and MakePop(Package) to add a new Package and delete a Package from a List of Package Description, considering them to act as push and pop operations of the Stack data structure
	max=11
	def MakePush(Package):
	if len(l)==max:
	print("overflow")
	else:
	l.append(package)
	def MakePop(Package):
	if len(l)==0:
	print("underflow")
	else:
	l.pop()
		4

16	i)What is the advantage of using with clause while opening a data file in Python.Also give syntax of with clause Opening files using the with statement is generally recommended because it ensures that open file descriptors are automatically closed after the flow of execution leaves the with code block. with open("hello. txt", mode="w") as file ii)A binary file "emp.dat" has structure EID, Ename, name, salary. Write a function display() ,that would read contents of file and display the detail of all employees whose salary is below 50000. (Convert Name of File as emp.dat,and salary >50000)	**1+3**

```
def countrec():
    num=0
    fobj=open("data.dat","rb")
    try:
        print("Emp id\tEmp Name\tEmp Sal")
        while True:
            rec=pickle.load(fobj)
            if rec[2]>20000:
                print(rec[0],"\t\t",rec[1],"\t\t",rec[2])
    except:
        fobj.close()
countrec()# This function is called to verify the result
```