OSDAV Public School, Kaithal

Half yearly Exams (2024-25)

Class :XI

Subject : Computer Science

SET-A

Time: 3 Hrs . **M.M. : 70**

General Instructions:-

I. All questions are compulsory.

	Section A(18X1=18)	
Q.N.	**Questions**	**Marks**
1	State True or False. Every if statement must be followed by an else or else-if statement.	**1**
2	Which of the following operator operates on single variable? (a) NOT (b) AND (c) OR (d) XOR	**1**
3	What will be the output of the following Python code? dic1 = {0: 'One', 1: 'Two', 2: 'Three'} for x in dic1: print (x) (a) 0 1 2 (b) One Two Three (c) 0 One 1 Two 2 Three (d) Error	**1**
4	What will be the output of the following code? D1={1: "One",2: "Two", 3: "C"} D2={4: "Four",5: "Five"} D1.update(D2) print (max(D1)) a) 'Five' b) Error c) [5: "Five"] d) 5	**1**
5	This function converts all uppercase letters in string to lowercase letters. (a) upper() (b) lower() (c) isupper( ) (d) islower()	**1**
6	What is the output of the following code? T1=(70,56,"Hello",22.2,,"Hi","The","World",3) print (t1 [2:4]) (a) (56, 'Hello'") (b) ('Hello, 22) (c) ('Hello', 22.2) (d) (56, 'Hello', 22)	**1**
7	Which of the following is/are invalid identifier in Python? a. Sum# b. pie c. For d. _school	**1**

8	Identify the statement with an error in the code given below::
	str= "Swatch Bharat" #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

9	Identify the utility software from the software mentioned below : a. Antivirus b. Disk defragmenter c. Ubuntu d. Spreadsheet	**1**
10	Which of the following is the correct expansion of XOR gate ? a. Extra OR gate b. Exclusive OR gate c. not of OR gate d. ONLY OR gate	**1**
11	Which index number is used to represent last character of string? (a) – 1 (b) 1 (c) 0 (d)n -1	**1**
12	Slice operation is performed on string with the use of (a) ; (b) , (c) : (d) .	**1**
13	Is the following Python code valid? >>>tup1= (56, 25,36, 15) >>>result=tupl.update(4,) (a) Yes, tup 1=(56, 25, 36, 15,4) and result=(56, 25, 36, 15,4)	**1**

	(b) Yes, tup 1=(56, 25, 36,15) and result=(56, 25, 36, 15,4) (c) No, because tuples are immutable (d) No, because wrong syntax for update() method	
14	What is the output of following code? t= (4,0, 'Hello', 90, 'Two', ('One', 45),34, 2) t1=t [1]+t [-2] print (t1) (a) 34 (b) 38 (c) Hello34 (d) 45	**1**
15	Predict the correct output of the code given below: a =10 b =3.4 c =2 a -=b a *=3+c b +=a*2 b =b/2 print(b) a. 69.4 b. 34.7 c. Error d. 34	**1**
16	Select the correct output of the code: t1= "Learn today Lead tomorrow" d=t1.partition('Lead') print(d) a. 'Learn today ', 'Lead', ' tomorrow' b. ['Learn today ', 'Lead', ' tomorrow'] c. ('Learn today ', 'Lead', ' tomorrow') d. {'Learn today ', 'Lead', ' tomorrow'}	**1**
	Q17 and 18 are ASSERTION AND REASONING based questions. Make the correct choice as a. Both A and R are True and R is the correct explanation for A. b. Both A and R are True and R is not the correct explanation for A. c. A is True but R is False. d. A is False but R is True.	
17	Assertion (A) Python codes do not require curly braces ( ) for making blocks. Reason (R) Python uses indentation for on as grouping statements in a block.	**1**
18	Assertion(A):. The append function does not work with tuples. Reasoning(R): Tuples support addition using '+' operator and not using append function	**1**
	Section B(2X7=14)	
19	Define packing and unpacking tuples	**2**
20	State and prove Demorgan's law algebrically	**2**
21	a = {} a [1] = 11 a ['1'] =22 a [1] - =1 s=0 for i in a: s=s+a[i] print(s)	**2**
22	Find the errors. L1=[2,4,5,9] L2=L1*3 L3=L1+3 L4=L1. pop (5)	**2**
23	Predict the output.	**2**

	L1 = [3. 4, 5, 9. 11, 2, 27] print (Ll. index (3)) print (max (L1)) print (len (L1))	
24	Convert the following: a. $(8AC)_{16}$= (……)$_{10}$ b. $(10111010.110)_2$=(……..)$_8$	**2**
25	Draw the logic circuit diagram of the following Boolean expression: F=(A+B).(A.C')	**2**
	Section C(3X5=15)	

26	What will be the output of the Python code given below:
	list=[20,21,35,47,55]
	s=0
	for x in list:
	  if x%2==0:
	  s=s+(2*x)
	  elif x%3==0:
	  s=s+(3*x)
	  else:
	  s=s-x
	print(s)
		3

27	Write a program in Python to input a sentence and display each word starting with "T" and display its count too.	**3**
28	Write a python program to find the sum of series $x+x^2+x^3+x^4+x^5+$…….x^N	**3**
29	Write a flowchart to show whether it is armstrong or not	**3**
30	Observe the following python code and find the possible output(s) from the possible output(s) from option (a) to (d). Also, write the minimum and maximum values that can be possibly assigned to variable 't'. import random display=("A", "O", "M", "C") s=random.randint(1,3) t=random.randint(2,4) for i in range(s,t): print(display[i], end="@") a. M@C@ b.M@A@ c.O@M@C@ d.O@A@	**3**
	Section D(4X2=8)	

31	Given a string s=" I love Python very much"
	Write a statement to produce the following output:
	(i) Python
	(ii) ["I", "love","Python","very", "much"]
	(iii) print reverse of the entire string
	(iv) print last five characters
	b. Rewrite the following while loop into its equivalent for loop
	x="Today is my computer exam"
	i=0
	while i < len(x):
	  print(x[i])
	  i=i+2
		4

32	a. Write python statements to do the following by using library function and importing appropriate library module in python: i. To print mean of the list l=[1,2,3,1,2,4,5,1,5]	**4**

	ii. To print a string str with the first letter of the string in uppercase . b. Predict the output **(i)** import random random.choice([15.5,156.9,76]) (ii) which type of data elements are accepted by random.shuffle( )	
	Section E(5X3=15)	
33	Observe the code and write the output. (i) 'arihant publication'. capitalize( ) (ii) 'arihant publication' count('hant', 0, 10) (iii) 'arihant publication'. endswith ('ion.') (iv) 'Arihant Publication'. find (The') (v) 'Arihant Publication' .index('cat')	**5**
34	(i)Write the short note on (a) ceil( ) (b) floor( ) (ii) Write a Python program to find the odd numbers and even numbers from entered list and display them in two different list.	**2** **3**
35	Consider the following commands being run in sequence for the dictionary and give the output accordingly: inventory= {'Pen':20, 'Eraser':50, 'pencil': 50, 'paint brush':30} a. print (inventory['Pen']) b. inventory['Wax crayons']=15 print (list(inventory.values())) c. print (inventory.update({'notebook':23}) d. print (inventory.popitem()) e. print (inventory.fromkeys(['sample paper', 'stamp'],(80))	**5**

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General Instructions:-

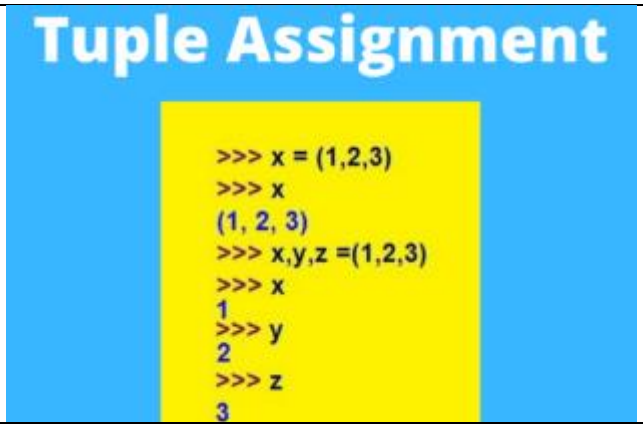
I. All questions are compulsory.

	Section A(18X1=18)	
Q.N.	**Questions**	**Marks**
1	State True or False. Every if statement must be followed by an else or else-if statement. False	**1**
2	Which of the following operator operates on single variable? (a) NOT (b) AND (c) OR (d) XOR NOT	**1**
3	What will be the output of the following Python code? dic1 = {0: 'One', 1: 'Two', 2: 'Three'} for x in dic1: print (x) (a) 0 1 2 (b) One Two Three (c) 0 One 1 Two 2 Three (d) Error (a) 0 1 2	**1**
4	What will be the output of the following code? D1={1: “One”,2: “Two”, 3: “C”} D2={4: “Four”,5: “Five”} D1.update(D2) print (max(D1)) a) ‘Five’ b) Error c) [5: “Five”] d) 5 d) 5	**1**
5	This function converts all uppercase letters in string to lowercase letters. (a) upper() (b) lower() (c) isupper( ) (d) islower() (b) lower()	**1**
6	What is the output of the following code? T1=(70,56,”Hello”,22.2,,”Hi”,”The”,”World”,3) print (t1 [2:4]) (a) (56, 'Hello'") (b) ('Hello, 22) (c) ('Hello', 22.2) (d) (56, 'Hello', 22) (c) ('Hello', 22.2)	**1**
7	Which of the following is/are invalid identifier in Python? a. Sum# b. pie c. For d. _school a. Sum#	**1**

8	Identify the statement with an error in the code given below::
	str= “Swatch Bharat” #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
	d) statement 4
		1

9	Identify the utility software from the software mentioned below : a. Antivirus b. Disk defragmenter c. Ubuntu d. Spreadsheet a. Antivirus b. Disk defragmenter	**1**
10	Which of the following is the correct expansion of XOR gate ? a. Extra OR gate b. Exclusive OR gate c. not of OR gate d. ONLY OR gate	**1**

11	Which index number is used to represent last character of string? (a) – 1 (b) 1 (c) 0 (d)n -1	**1**
12	Slice operation is performed on string with the use of (a) ; (b) , (c) : (d) .	**1**
13	Is the following Python code valid? >>>tup1= (56, 25,36, 15) >>>result=tupl.update(4,) (a) Yes, tup 1=(56, 25, 36, 15,4) and result=(56, 25, 36, 15,4) (b) Yes, tup 1=(56, 25, 36,15) and result=(56, 25, 36, 15,4) (c) No, because tuples are immutable (d) No, because wrong syntax for update() method	**1**
14	What is the output of following code? t= (4,0, 'Hello', 90, 'Two', ('One', 45),34, 2) t1=t [1]+t [-2] print (t1) (a) 34 (b) 38 (c) Hello34 (d) 45	**1**
15	Predict the correct output of the code given below: a =10 b =3.4 c =2 a -=b a *=3+c b +=a*2 b =b/2 print(b) a. 69.4 b. 34.7 c. Error d. 34	**1**
16	Select the correct output of the code: t1= "Learn today Lead tomorrow" d=t1.partition('Lead') print(d) a. 'Learn today ', 'Lead', ' tomorrow' b. ['Learn today ', 'Lead', ' tomorrow'] c. ('Learn today ', 'Lead', ' tomorrow') d. {'Learn today ', 'Lead', ' tomorrow'}	**1**
	Q17 and 18 are ASSERTION AND REASONING based questions. Make the correct choice as a. Both A and R are True and R is the correct explanation for A. b. Both A and R are True and R is not the correct explanation for A. c. A is True but R is False. d. A is False but R is True.	
17	Assertion (A) Python codes do not require curly braces ( ) for making blocks. Reason (R) Python uses indentation for on as grouping statements in a block. a. Both A and R are True and R is the correct explanation for A.	**1**
18	Assertion(A):. The append function does not work with tuples. Reasoning(R): Tuples support addition using '+' operator and not using append Function b. Both A and R are True and R is not the correct explanation for A.	**1**
	Section B(2X7=14)	
19	Define packing and unpacking tuples The process of assigning values to a tuple is known as **packing.** While on the other hand, the unpacking or tuple assignment is the process that assigns the values on the right-hand side to the left-hand side variables. In unpacking, we basically extract the values of the tuple into a single variable.Example given below	**2**

		
20	State and prove Demorgan's law algebraically (A+B)'=A'.B' (AB)'=A'+B' For $A + \overline{A} = 1$, $A \cdot B + \overline{A} + \overline{B} = 1$ [Substitution as mentioned above] $\overline{A} + B + \overline{B} = 1$ [Using absorption law $(\overline{A} + A \cdot B = \overline{A} + B)$] $\overline{A} + 1 = 1$ [Using $A + \overline{A} = 1$] $1 = 1$ [Using $A + 1 = 1$] For $A\overline{A} = 0$, $AB(\overline{A} + \overline{B} = 0)$ [Substitution as mentioned above] $AB\overline{A} + AB\overline{B} = 0$ [Using distributive property] $0 + 0 = 0$ [Using $A\overline{A} = 0$] $0 = 0$ [Simplifying]	**2**
21	a = {} a [1] = 11 a ['1'] =22 a [1] - =1 s=0 for i in a: s=s+a[i] print(s) **Ans:-32**	**2**

22	Find the errors.
	L1=[2,4,5,9]
	L2=L1*3
	L3=L1+3 #integer and list can not add
	L4=L1. pop (5) # index not found
		2

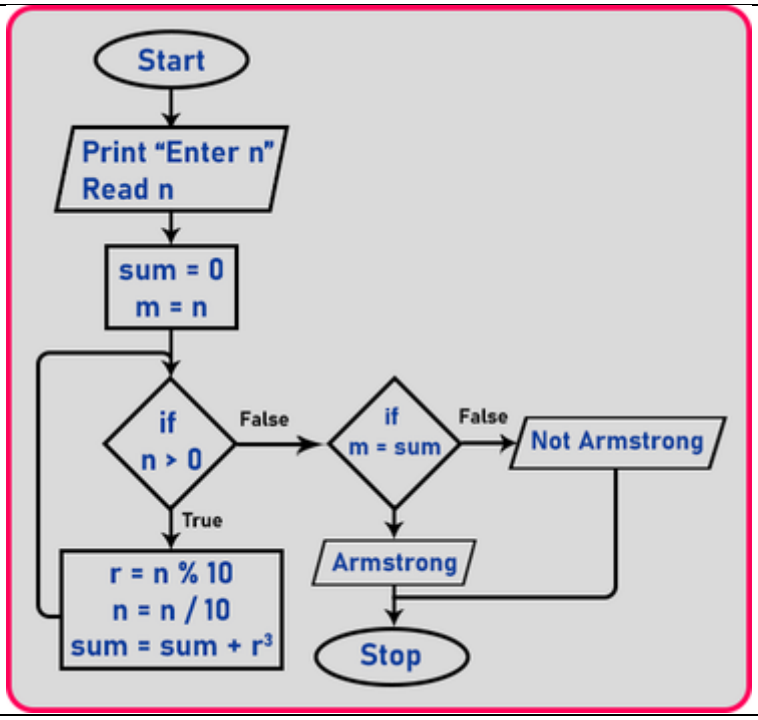
23	Predict the output. L1 = [3, 4, 5, 9. 11, 2, 27] print (Ll. index (3))=>0	**2**

	print (max (L1))=>27 print (len (L1))=>7	
24	Convert the following: a. $(8AC)_{16}= (2220)_{10}$ b. $(10111010.110)_2=(262.6)_8$	**2**
25	Draw the logic circuit diagram of the following Boolean expression: F=(A+B).(A.C')	**2**
	Section C(3X5=15)	

26	What will be the output of the Python code given below:
	list=[20,21,35,47,55]
	s=0
	for x in list:
	  if x%2==0:
	  s=s+(2*x)
	  elif x%3==0:
	  s=s+(3*x)
	  else:
	  s=s-x
	print(s)
	Ans:-34
		3

27	Write a program in Python to input a sentence and display each word starting with "T" and display its count too.
	S=input("enter string")
	W=s.split()
	for a in W:
	  if a[0]=="t":
	  c+=1
	  print(c)
		3

28	Write a python program to find the sum of series $x+x^2+x^3+x^4+x^5+\ldots\ldots\ldots\ldots x^N$ s=0 x=int(input("enter x")) n=int(input("enter n")) for i in range(1,n+1): s=s+math.pow(x,i) print(s)	**3**
29	Write a flowchart to show whether it is armstrong or not	**3**

		
30	Observe the following python code and find the possible output(s) from the possible output(s) from option (a) to (d). Also, write the minimum and maximum values that can be possibly assigned to variable 't'. import random display=("A", "O", "M", "C") s=random.randint(1,3) t=random.randint(2,4) for i in range(s,t): print(display[i], end="@") a. M@C@ b.M@A@ c.O@M@C@ d.O@A@ min value for t=2 max value for t=4 correct output: a. M@C@ , c.O@M@C@	**3**
	Section D(4X2=8)	
31	Given a string s=" I love Python very much" Write a statement to produce the following output: (i) Python=>s[7:12] (ii) ["I", "love","Python","very", "much"]=>s.split() (iii) print reverse of the entire string=>s[::-1] (iv) print last five characters=>s[-5:] b. Rewrite the following while loop into its equivalent for loop x="Today is my computer exam" i=0 while i < len(x): print(x[i]) i=i+2 **for i in range (0,len(x),2):** **print(x[i])**	**4**
32	a. Write python statements to do the following by using library function and importing appropriate library module in python: i. To print mean of the list l=[1,2,3,1,2,4,5,1,5] Import statistics	**4**

	Statistics.mean(l) ii. To print a string str with the first letter of the string in uppercase . Str.capitalize() b. Predict the output **(i)** import random random.choice([15.5,156.9,76]) 15.5,156.9,76 any one out of these (ii) which type of data elements are accepted by random.shuffle( )=> list	
	Section E(5X3=15)	
33	Observe the code and write the output. (i) 'arihant publication'. capitalize( ) =>Arihant publication (ii) 'arihant publication' count('hant', 0, 10)=>1 (iii) 'arihant publication'. endswith ('ion.') => true (iv) 'Arihant Publication'. find (The')=> -1 (v) 'Arihant Publication' .index('cat')=> 13	**5**
34	(i)Write the short note on (a) ceil( ) (b) floor( ) Math.ceil(1.2)=> 2 Math.floor(1.2)=>1 (ii) Write a Python program to find the odd numbers and even numbers from entered list and display them in two different list. **def sum():** **e=0** **o=0** **l=eval(int(input("enter list"))** **for a in l:** **if a %2==0:** **e+=1** **else:** **o+=1** **print("Number of odd number",o)** **print("Number of even numbers",e)**	**2** **3**
35	Consider the following commands being run in sequence for the dictionary and give the output accordingly: inventory= {'Pen':20, 'Eraser':50, 'pencil': 50, 'paint brush':30} a. print (inventory['Pen'])=>20 b. inventory['Wax crayons']=15 print (list(inventory.values()))=>[20,50,50,30] c. print (inventory.update({'notebook':23}) =>{'Pen':20, 'Eraser':50, 'pencil': 50, 'paint brush':30, 'notebook':23} d. print (inventory.popitem())=>'notebook':23 e. print (inventory.fromkeys(['sample paper', 'stamp'],(80)) =>{'Pen':20, 'Eraser':50, 'pencil': 50, 'paint brush':30, 'sample paper':80, 'stamp':80}	**5**

OSDAV Public School, Kaithal

Half yearly Exams (2024-25)

Class :XI **SET-B**

Subject : Computer Science

Time: 3 Hrs . **M.M. : 70**

General Instructions:-

I. All questions are compulsory.

Q.N.	Questions	Marks
1	State True or False. The extension of a python file is .pt.	**1**
2	Which of the following operator gives output 1 when both inputs are 1 (a) NOT (b) AND (c) OR (d) XOR	**1**
3	What will be the output of the following Python code? d = {0: 'One', 1: 'Two', 2: 'Three'} for x in d: print (d[x]) (a) 0 1 2 (b) One Two Three (c) 0 One 1 Two 2 Three (d) Error	**1**
4	What will be the output of the following code? D1={1: "One",12: "Two", 13: "C"} D2={12: "Four",5: "Five"} D1.update(D2) print (max(D1)) a) 'Five' b) 12 c) [13:"c"] d) 13	**1**
5	This function converts all uppercase letters in string to lowercase letters and vice versa (a) upper() (b) swapcase() (c) isupper( ) (d) islower()	**1**
6	What is the output of the following code? T1=(70,56,"Hello",22,2,,"Hi","The","World",3) print (t1 [:4]) (a) (56, 'Hello',22,2) (b) (70,56,'Hello, 22) (c) ('Hello', 22,2) (d) (70,56, 'Hello', 22,2)	**1**
7	Which of the following is an valid identifier in Python? a. Sum# b. pie c. For d. _school	**1**

8	Identify the statement with an error in the code given below::
	str= "Swatch Bharat" #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

9	Identify the application software from the software mentioned below : a. Antivirus b. Disk defragmenter c. Ubuntu d. Spreadsheet	**1**
10	NOR gate is constructed by using OR gate followed by ... (a) AND gate (b) XOR gate (d) NOT gate (c) NAND gate	**1**
11	Which index number is used to represent last 3rd character of string of n characters? (a) – 1 (b) n-3 (c) -2 (d)-3	**1**
12	Concatenation operation is performed on string with the use of (a) - (b) * (c) + (d) +=	**1**
13	Is the following Python code valid? >>>tup1= (56, 25,36, 15) >>>result=tupl+(5) (a) Yes, tup 1=(56, 25, 36, 15) and result=(56, 25, 36, 15,5) (b) No, because of wrong syntax	**1**

	(c) (b) Yes, tup 1=(56, 25, 36,15) and result=(5,56, 25, 36, 15) **(d)** (c) No, because tuples are immutable	
14	What is the output of following code? t= (4,0, 'Hello', 90, 'Two', ('One', 45),34, 2) t1=t [-2]+t [-1] print (t1) (a) 34 (b) 38 (c) Hello34 (d) 36	**1**
15	Predict the correct output of the code given below: a =10 b =3.4 c =2 a -=b a *=3+c b +=a*2 b =b//2 print(b) a. 69.4 b. 34.0 c. Error d. 34	**1**
16	Select the correct output of the code: t1= "Learn today Lead tomorrow" d=t1.split('Lead') print(d) a. 'Learn today ', 'Lead', ' tomorrow' b. ['Learn today ', ' tomorrow'] c. ('Learn today ', 'Lead', ' tomorrow') d. ('Learn today ', ' tomorrow')	**1**
	Q17 and 18 are ASSERTION AND REASONING based questions. Make the correct choice as a. Both A and R are True and R is the correct explanation for A. b. Both A and R are True and R is not the correct explanation for A. c. A is True but R is False. d. A is False but R is True.	
17	Assertion(A): Substring and string slices of a string are not the same though both of them refer to the subparts of the strings Reason(R) : A substring contains continuous subpart(s) of the string whereas string slices may or may not contain continuous subpart(s) of a string.	**1**
18	Assertion (A) A list can be a key of a dictionary. Reason (R) A list is a mutable data type.	**1**
	Section B(2X7=14)	
19	Define sort and sorted function with the help of suitable example	**2**
20	State and prove associative law with the help of truth table	**2**
21	a = {} a [1] = 1 a ['1'] = 2 a [1] + = 1 s=0 for i in a: s=s+a[i] print(s)	**2**
22	Find the errors. L1=[2,4,5,9] L2=L1*3 L3=L1+3 L4=L1. pop (5)	**2**

23	Predict the output. L1 = [3.2, 4, 5, 9. 11, 2,2 27] print (Ll. count (2)) print (max (L1)> len (L1))	**2**
24	Convert the following: a. $(9AB)_{16}$= (……)$_{10}$ b. $(10111110.110)_2$=(……..)$_8$	**2**
25	a. Do the following memory conversion $2X2^{10}$ TB = _____ KB b. Prove the following equality ((A.B)'+(A.B)')'=(A.B)	**2**
	Section C(3X5=15)	

26	What will be the output of the Python code given below:
	list=[20,21,35,47,55]
	s=0
	for x in list:
	  if x%2==0:
	  s=s+(2*x)
	  elif x%3==0:
	  s=s+(3*x)
	  else:
	  s=s-x
	print(s)
		3

27	Write a program in Python to input a sentence and display each word starting with vowel	**3**
28	Write a flowchart to print reverse of a 5 digit number and show whether its palindrome or not	**3**
29	Write a python program to find the sum of series $x+x^2+x^4+x^6+x^8+……x^N$	**3**
30	Observe the following python code and find the possible output(s) from the possible output(s) from option (a) to (d). Also, write the minimum and maximum values that can be possibly assigned to variable 't'. import random display=("A", "O", "M", "C") s=random.randint(1,3) t=random.randint(2,4) for i in range(s,t): print(display[i], end="@") a. M@C@ b.M@A@ c.O@M@C@ d.O@A@	**3**
	Section D(4X2=8)	
31	a.Given a string s=" I love Python very much" Write a statement to produce the following output: (i) very (ii) ("I", "love","Python very much") or (i) print reverse of the entire string (ii) print first five characters b. Rewrite the following while loop into its equivalent for loop x="Today is my computer exam" i=0 while i < len(x): print(x[i])	**4**

	i=i+2	
32	a. Write python statements to do the following by using library function and importing appropriate library module in python: i. To print median of the list l=[1,2,3,1,2,4,5,1,5] ii. To get list of every word of string b. Write a python code to shuffle the elements of a given list using random module	**4**
	Section E(5X3=15)	
33	Observe the code and write the output. (i) 'Arihant publication'. title( ) (ii) 'arihant publication'.swapcase() (iii) 'arihant publication'. startswith ('Ari.') (iv) 'Arihant Publication'. find ('ant') (v) 'Arihant Publication' .index('Hant')	**5**
34	(i)Write the short note on (a) append( ) (b) extend( ) (ii) Write a Python program to find the sum of odd numbers and sum of even numbers present in a list and display both answers	**2** **3**
35	Consider the following commands being run in sequence for the dictionary and give the output accordingly: inventory= {'Pen':20, 'Eraser':50, 'pencil': 50, 'paint brush':30} a. print (inventory['Eraser']) b. inventory['notebooks']=25 print (list(inventory.keys())) c. print (inventory.update({'pen':23}) d. print (inventory.popitem()) e. print (inventory.fromkeys(['sample paper', 'stamp'],(60))	**5**

OSDAV Public School, Kaithal

Half yearly Exams (2024-25)

Class :XI

Subject : Computer Science

SET-B

Time: 3 Hrs . **M.M. : 70**

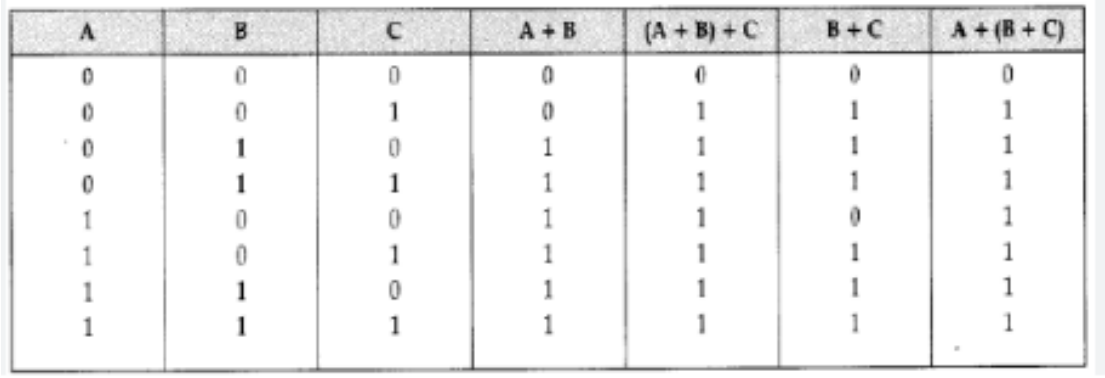
General Instructions:-

I. All questions are compulsory.

Q.N.	Questions	Marks
1	State True or False. The extension of a python file is .pt.=>False .py	**1**
2	Which of the following operator gives output 1 when both inputs are 1 (b) AND	**1**
3	What will be the output of the following Python code? d = {0: 'One', 1: 'Two', 2: 'Three'} for x in d: print (d[x]) (b) One Two Three	**1**
4	What will be the output of the following code? D1={1: “One”,12: “Two”, 13: “C”} D2={12: “Four”,5: “Five”} D1.update(D2) print (max(D1)) d) 13	**1**
5	This function converts all uppercase letters in string to lowercase letters and vice versa (b) swapcase()	**1**
6	What is the output of the following code? T1=(70,56,”Hello”,22,2,,”Hi”,”The”,”World”,3) print (t1 [:4]) (d) (70,56, 'Hello', 22,2)	**1**
7	Which of the following is/are valid identifier in Python? b.pie c. For d. _school	**1**

8	Identify the statement with an error in the code given below::
	str= “Swatch Bharat” #statement 1
	x= 3 #statement 2
	print(str+x) #statement 3
	print(str*3) #statement 4
	c) statement 3
		1

9	Identify the application software from the software mentioned below : d. Spreadsheet	**1**
10	NOR gate is constructed by using OR gate followed by ... (d) NOT gate	**1**
11	Which index number is used to represent last 3rd character of string of n characters? (d)-3	**1**
12	Concatenation operation is performed on string with the use of (c) +	**1**
13	Is the following Python code valid? >>>tup1= (56, 25,36, 15) >>>result=tupl+(5) (b)No, because of wrong syntax	**1**
14	What is the output of following code? t= (4,0, 'Hello', 90, 'Two', ('One', 45),34, 2)	**1**

	t1=t [-2]+t [-1] print (t1) (d) 36	
15	Predict the correct output of the code given below: a =10 b =3.4 c =2 a -=b a *=3+c b +=a*2 b =b//2 print(b) b. 34.0	**1**
16	Select the correct output of the code: t1= "Learn today Lead tomorrow" d=t1.split('Lead') print(d) d. ('Learn today ', ' tomorrow')	**1**
	Q17 and 18 are ASSERTION AND REASONING based questions. Make the correct choice as a. Both A and R are True and R is the correct explanation for A. b. Both A and R are True and R is not the correct explanation for A. c. A is True but R is False. d. A is False but R is True.	
17	Assertion(A): Substring and string slices of a string are not the same though both of them refer to the subparts of the strings Reason(R) : A substring contains continuous subpart(s) of the string whereas string slices may or may not contain continuous subpart(s) of a string. **Answer a.**	**1**
18	Assertion (A) A list can be a key of a dictionary. Reason (R) A list is a mutable data type. Answer d	**1**
	Section B(2X7=14)	
19	Define sort and sorted function with the help of suitable example L=[34,5,7,6,23,11] L.sort() will change l itself L1=sorted(L) L will remain same L1 will be sorted	**2**
20	State and prove associative law with the help of truth table 	**2**
21	a = {} a [1] = 1	**2**

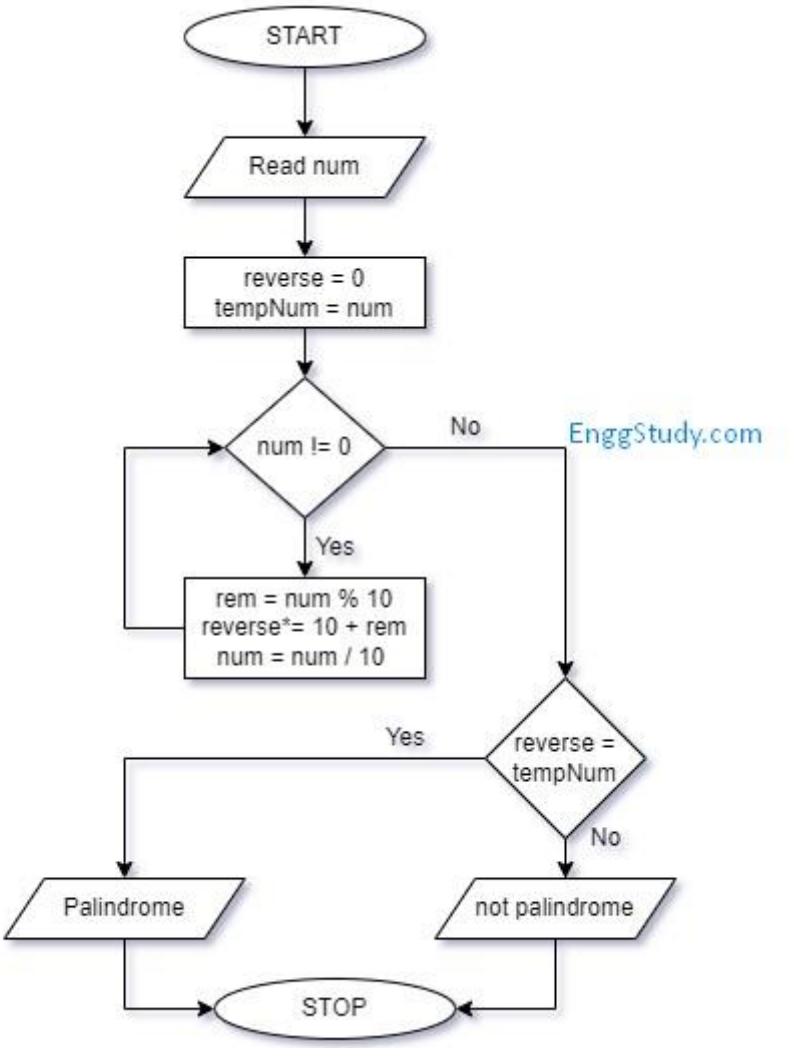
A	B	C	A + B	(A + B) + C	B + C	A + (B + C)
0	0	0	0	0	0	0
0	0	1	0	1	1	1
0	1	0	1	1	1	1
0	1	1	1	1	1	1
1	0	0	1	1	0	1
1	0	1	1	1	1	1
1	1	0	1	1	1	1
1	1	1	1	1	1	1

	a ['1'] = 2 a [1] + = 1 s=0 for i in a: s=s+a[i] print(s) **Ans:4**	
22	Find the errors. L1=[2,4,5,9] L2=L1*3 L3=L1+"3" L4=L1. pop ()	**2**
23	Predict the output. L1 = [3.2, 4, 5, 9. 11, 2,2 27] print (Ll. count (2)) print (max (L1)> len (L1)) 3 True	**2**
24	Convert the following: a. $(9AB)_{16}= (2475)_{10}$ b. $(10111110.110)_2=(276.6)_8$	**2**
25	a. Do the following memory conversion $2X2^{10}$ TB = ___$2x2^{40}$ KB b. Prove the following equality ((A.B)'+(A.B)')'=(A.B) ((A.B)')'.(A.B)')' (A'+B')'(A'+B')' (AB).(AB)=AB	**2**
	Section C(3X5=15)	

26	What will be the output of the Python code given below:
	list=[20,21,35,47,55]
	s=0
	for x in list:
	if x%2==0:
	s=s+(2*x)
	elif x%3==0:
	s=s+(3*x)
	else:
	s=s-x
	print(s)
	ans=-34
		3

27	Write a program in Python to input a sentence and display each word starting with vowel
	S=input("enter string")
	W=s.split()
	for a in W:
	if a in "aeiou":
	print(a)
		3

28	Write a flowchart to print reverse of a 5 digit number and show whether its palindrome or not	**3**



29	Write a python program to find the sum of series $x+x^2+x^4+x^6+x^8+\ldots\ldots\ldots\ldots x^N$ s=0 x=int(input("enter x")) n=int(input("enter n")) for i in range(1,n+1,2): s=s+math.pow(x,i) print(s)	**3**
30	Observe the following python code and find the possible output(s) from the possible output(s) from option (a) to (d). Also, write the minimum and maximum values that can be possibly assigned to variable 't'. import random display=("A", "O", "M", "C") s=random.randint(1,3) t=random.randint(2,4) for i in range(s,t): print(display[i], end="@") a. M@C@ b.M@A@ c.O@M@C@ d.O@A@ min value for t=2 max value for t=4 correct output: a. M@C@ , c.O@M@C@	**3**

	Section D(4X2=8)	
31	a.Given a string s=" I love Python very much" Write a statement to produce the following output: (i) very=>str= s.spliit() str[3] (ii) ("I", "love","Python very much") Str.partitiion("love") (iii) print reverse of the entire string s[-::1] (iv) print first five characters s[:5] b. Rewrite the following while loop into its equivalent for loop x="Today is my computer exam" i=0 while i < len(x): print(x[i]) i=i+2 **for i in range (0,len(x),2):** **print(x[i])**	**4**
32	a. Write python statements to do the following by using library function and importing appropriate library module in python: i. To print median of the list l=[1,2,3,1,2,4,5,1,5] Import statistics Statistics.mean(l) ii. To get list of every word of string W=String.split() b. Write a python code to shuffle the elements of a given list using random module **import random** **random .shuffle()**	**4**
	Section E(5X3=15)	
33	Observe the code and write the output. (i) 'Arihant publication'. title( ) =>'Arihant Publication' (ii) 'arihant publication'.swapcase()=>ARIHANT PUBLICATION (iii) 'arihant publication'. startswith ('ari.') => True (iv) 'Arihant Publication'. find ('ant')=>4 (v) 'Arihant Publication' .index('Hant')=> False	**5**
34	(i)Write the short note on (a) append( ) (b) extend( ) L=[1,4,3,2,5,6] L2=[6,7,8] Append is used to add mutiple elements as a single element l.append(L2) L1=(1,4,3,2,5,6,[6,7,8]) Extend is used to add multiple element as a multiple elements in list L1.append(L2) L1=(1,4,3,2,5,6,6,7,8) (ii) Write a Python program to find the sum of odd numbers and sum of even numbers present in a list and display both answers **def sum():** **e=0** **o=0** **l=eval(int(input("enter list"))** **for a in l:**	**2** **3**

	if a %2==0: **e+=a** **else:** **o+=a** **print("sum of odd number",o)** **print("sum of even numbers",e)**	
35	Consider the following commands being run in sequence for the dictionary and give the output accordingly: inventory= {'Pen':20, 'Eraser':50, 'pencil': 50, 'paint brush':30} a. print (inventory['Eraser'])=> 50 b. inventory['notebooks']=25 ['Pen', 'Eraser', 'pencil', 'paint brush', 'notebooks'] print (list(inventory.keys())) c. print (inventory.update({'pen':23}) {'Pen':23, 'Eraser':50, 'pencil': 50, 'paint brush':30} d. print (inventory.popitem())=>'paint brush':30 e. print (inventory.fromkeys(['sample paper', 'stamp'],(60)) {{'Pen':23, 'Eraser':50, 'pencil': 50, 'paint brush':30,'sample paper':60, 'stamp':60}	**5**