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XII Computer Science Summer Holiday HW PART-1, Session: 2023-24

Q No.	Question
1	State True or False “Tuple is datatype in Python which contain data in key-value pair.”
2	Which of the following is not a keyword? (A) eval (B) assert (C) nonlocal (D) pass
3	Given the following dictionaries dict_student = {"rno" : "53", "name" : 'Rajveer Singh'} dict_marks = {"Accts" : 87, "English" : 65} Which statement will merge the contents of both dictionaries? (A) dict_student + dict_marks (B) dict_student.add(dict_marks) (C) dict_student.merge(dict_marks) (D) dict_student.update(dict_marks)
4	Consider the given expression: not ((True and False) or True) Which of the following will be correct output if the given expression is evaluated? (A) True (B) False (C) NONE (D) NULL
5	Select the correct output of the code: >>> s='mail2kv@kvsangathan.kvs.in' >>> s=s.split('kv') >>> op = s[0] + "@kv" + s[2] >>> print(op) (A) mail2@kvsangathan (B) mail2@sangathan. (C) mail2@kvsangathan. (D) mail2kvsangathan.
6	Which of the following statement(s) would give an error after executing the following code? D={'rno':32,'name':'Ms Archana','subject':['hindi','english','cs'],'marks':(85,75,89)} #S1 print(D) #S2 D['subject'][2]='IP' #S3 D['marks'][2]=80 #S4 print(D) #S5 (A) S1 (B) S3 (C) S4 (D) S3 and S4
7	What will the following expression be evaluated to in Python? print (round (100.0 / 4 + (3 + 2.55) , 1)) (A) 30.0 (B) 30.55 (C) 30.6 (D) 31

8	<p>(A) Given is a Python string declaration:</p> <pre>message='FirstPreBoardExam@2022-23'</pre> <p>Write the output of: <code>print(message[: :-3].upper())</code></p> <p>(B) Write the output of the code given below:</p> <pre>d1={'rno':25, 'name':'dipanshu'} d2={'name':'himanshu', 'age':30,'dept':'mechanical'} d2.update(d1) print(d2.keys())</pre>
9	<p>Predict the output of the Python code given below:</p> <pre>data=["L",20,"M",40,"N",60] times=0 alpha="" add=0 for c in range(1,6,2): times = times + c alpha = alpha + data [c-1] + "@" add = add + data[c] print (times, add, alpha)</pre>
10	<p>Predict the output of the Python code given below:</p> <pre>L=[1,2,3,4,5] Lst=[] for i in range(len(L)): if i%2==1: t=(L[i],L[i]**2) Lst.append(t) print(Lst)</pre>
11	<p>Find the invalid identifier from the following</p> <p>a) Marks@12 b) string_12 c) _bonus d)First_Name</p>
12	<p>Identify the valid declaration of Rec:</p> <pre>Rec=(1,"Ashoka",50000)</pre> <p>a) List b) Tuple c)String d) Dictionary</p>
13	<p>Suppose a tuple Tup is declared as Tup = (12, 15, 63, 80) which of the following is incorrect?</p> <p>a) print(Tup[1]) b) Tup[2] = 90 c) print(min(Tup)) d) print(len(Tup))</p>
14	<p>The correct output of the given expression is:</p> <p>True and not False or False</p> <p>(a) False (b) True (c) None (d) Null</p>

	(a) looping statement (b) selection statement (c) iterative (d) sequential
28	Predict the correct output of the following Python statement – print(4 + 3**3/2) (a) 8 (b) 9 (c) 8.0 (d) 17.5
29	Choose the most correct statement among the following – (a) a dictionary is a sequential set of elements (b) a dictionary is a set of key-value pairs (c) a dictionary is a sequential collection of elements key-value pairs (d) a dictionary is a non-sequential collection of elements
30	Consider the string state = "Jharkhand" . Identify the appropriate statement that will display the last five characters of the string state? (a) state [-5:] (b) state [4:] (c) state [:4] (d) state [-4]
31	What will be the output of the following lines of Python code? if not False: print(10) else: print(20) (a) 10 (b) 20 (c) True (d) False
32	Find error in the following code(if any) and correct code by rewriting code and underline the correction;- x= int("Enter value of x:") for in range [0,10]: if x=y print(x + y) else: print(x-y)
33	Find output generated by the following code: Str = "Computer" Str = Str[-4:] print(Str*2)
34	Consider the following lines of codes in Python and write the appropriate output: student = {'rollno':1001, 'name':'Akshay', 'age':17} student['name'] = "Abhay" print(student)
35	Find output generated by the following code: string="aabbcc" count=3 while True: if string[0]=='a': string=string[2:] elif string[-1]=='b': string=string[:2] else: count+=1 break print(string) print(count)

WORKSHEET – FUNCTIONS

1	Function name must be followed by _____
Ans	()
2	_____ keyword is used to define a function
Ans	def
3	Function will perform its action only when it is _____
Ans	Called / Invoked or any other word with similar meaning
4	<p>Write statement to call the function.</p> <pre>def Add(): X = 10 + 20 print(X) _____ #statement to call the above function</pre>
Ans	Add()
5	<p>Write statement to call the function.</p> <pre>def Add(X,Y): Z = X+Y print(Z) _____ #statement to call the above function</pre>
Ans	Add(10,20) # Parameter value is user dependent
6	<p>Write statement to call the function.</p> <pre>def Add(X,Y): Z = X+Y return Z _____ #statement to call the above function print("Total =",C)</pre>
Ans	C = Add(10,20) # Parameter value is user dependent
7	<p>Which Line Number Code will never execute?</p> <pre>def Check(num): if num%2==0: print("Hello") return True print("Bye") else: return False C = Check(20) print(C)</pre>
Ans	Line 5
8	<p>What will be the output of following code?</p> <pre>def Cube(n): print(n*n*n) Cube(n) # n is 10 here print(Cube(n))</pre>
Ans	1000 1000 None

9	What are the different types of actual arguments in function? Give example of any one of them.
Ans	<p>1. Positional 2. Keyword 3. Default 4. Variable length argument</p> <p>Example : (Keyword argument) def Interest(principal,rate,time): return (principal*rate*time)/100</p> <p>R = Interest(rate=.06, time=7,principal=100000)</p>
10	<p>What will be the output of following code:</p> <pre>def Alter(x, y = 10, z=20): sum=x+y+z print(sum) Alter(10,20,30) Alter(20,30) Alter(100)</pre>
Ans	<p>60 70 130</p>
11	<p>Ravi a python programmer is working on a project, for some requirement, he has to define a function with name CalculateInterest(), he defined it as:</p> <pre>def CalculateInterest(Principal,Rate=.06,Time): # code</pre> <p>But this code is not working, Can you help Ravi to identify the error in the above function and what is the solution.</p>
Ans	<p>Yes, here non-default argument is followed by default argument which is wrong as per python's syntax.</p> <p>Solution:</p> <ol style="list-style-type: none"> 1) First way is put Rate as last argument as: def CalculateInterest(Principal,Time, Rate=.06): 2) Or, give any default value to Time also as: def CalculateInterest(Principal,Rate=.06,Time=12):
12	<p>Call the given function using KEYWORD ARGUMENT with values 100 and 200</p> <pre>def Swap(num1,num2): num1,num2=num2,num1 print(num1,num2)</pre> <p>Swap(_____, _____)</p>
Ans	<p>Swap(num1=100,num2=200)</p>

13	<p>Which line number of code(s) will not work and why?</p> <pre>def Interest(P,R,T=7): I = (P*R*T)/100 print(I) Interest(20000,.08,15) #Line 1 Interest(T=10,20000,.075) #Line 2 Interest(50000,.07) #Line 3 Interest(P=10000,R=.06,Time=8) #Line 4 Interest(80000,T=10) #Line 5</pre>
Ans	<p>Line 2 : Keyword argument must not be followed by positional argument Line 4 : There is no keyword argument with name 'Time' Line 5 : Missing value for positional argument 'R'</p>
14	<p>What will be the output of following code?</p> <pre>def Calculate(A,B,C): return A*2, B*2, C*2 val = Calculate(10,12,14) print(type(val)) print(val)</pre>
Ans	<pre><class 'tuple'> (20, 24, 28)</pre>
15	<p>What is Local Variable and Global Variables? Illustrate with example</p>
Ans	<p>Local variables are those variables which are declared inside any block like function, loop or condition. They can be accessed only in that block. Even formal argument will also be local variables and they can be accessed inside the function only. Local variables are always indented. Lifetime of local variables is created when we enter in that block and ends when execution of block is over.</p> <p>Global variables are declared outside all block i.e. without any indent. They can be accessed anywhere in the program and their lifetime is also throughout the program.</p> <p>Example:</p> <pre>count = 1 #Global variable count def operate(num1, num2): # Local variable num1 and num2 result = num1 + num2 #Local variable result print(count) operate(100,200) count+=1 operate(200,300)</pre>
16	<p>What will be the output of following code?</p> <pre>def check(): num=50 print(num) num=100 print(num) check() print(num)</pre>
Ans	<pre>100 50 100</pre>

17	<p>What will be the output of following code?</p> <pre>def check(): global num num=1000 print(num) num=100 print(num) check() print(num)</pre>
Ans	<p>100 1000 1000</p>
18	<p>What will be the output of following code?</p> <pre>print("Welcome!") print("Iam ",__name__) # __ is double underscore</pre>
Ans	<p>Welcome! Iam __main__</p>
19	Function can alter only Mutable data types? (True/False)
Ans	True
20	A Function can call another function or itself? (True/False)
Ans	True
21	<p>What will be the output of following code?</p> <pre>def display(s): l = len(s) m="" for i in range(0,l): if s[i].isupper(): m=m+s[i].lower() elif s[i].isalpha(): m=m+s[i].upper() elif s[i].isdigit(): m=m+"\$" else: m=m+"*" print(m) display("EXAM20@cbse.com")</pre>
Ans	exam\$\$*CBSE*COM
22	<p>What will be the output of following code?</p> <pre>def Alter(M,N=50): M = M + N N = M - N print(M,"@",N) return M</pre>

	<pre>A=200 B=100 A = Alter(A,B) print(A,"#",B) B = Alter(B) print(A,'@',B)</pre>
Ans	<p>300 @ 200 300 # 100 150 @ 100 300 @ 150</p>
23	<p>What will be the output of following code?</p> <pre>def Total(Number=10): Sum=0 for C in range(1,Number+1): if C%2==0: continue Sum+=C return Sum print(Total(4)) print(Total(7)) print(Total())</pre>
Ans	<p>4 16 25</p>
24	<p>What will be the output of following code?</p> <pre>X = 100 def Change(P=10, Q=25): global X if P%6==0: X+=100 else: X+=50 Sum=P+Q+X print(P,'#',Q,'\$',Sum) Change() Change(18,50) Change(30,100)</pre>
Ans	<p>10 # 25 \$ 185 18 # 50 \$ 318 30 # 100 \$ 480</p>
25	<p>What will be the output of following code?</p> <pre>a=100 def show(): global a a=200</pre>

	<pre>def invoke(): global a a=500 show() invoke() print(a)</pre>
Ans	500
26	<p>What will be the output of following code?</p> <pre>def drawline(char='\$',time=5): print(char*time) drawline() drawline('@',10) drawline(65) drawline(chr(65))</pre>
Ans	<pre>\$\$\$\$\$ @@@@@@@@@@@@ 325 AAAAA</pre>
27	<p>What will be the output of following code?</p> <pre>def Updater(A,B=5): A = A // B B = A % B print(A,'\$',B) return A + B A=100 B=30 A = Updater(A,B) print(A,'#',B) B = Updater(B) print(A,'#',B) A = Updater(A) print(A,'\$',B)</pre>
Ans	<pre>3 \$ 3 6 # 30 6 \$ 1 6 # 7 1 \$ 1 2 \$ 7</pre>
28	<p>What will be the output of following code?</p> <pre>def Fun1(num1): num1*=2 num1 = Fun2(num1) return num1</pre>

	<pre>def Fun2(num1): num1 = num1 // 2 return num1 n = 120 n = Fun1(n) print(n)</pre>
Ans	120
29	<p>What will be the output of following code?</p> <pre>X = 50 def Alpha(num1): global X num1 += X X += 20 num1 = Beta(num1) return num1 def Beta(num1): global X num1 += X X += 10 num1 = Gamma(num1) return num1 def Gamma(num1): X = 200 num1 += X return num1 num = 100 num = Alpha(num) print(num,X)</pre>
Ans	420 80
30	<p>What will be the output of following code?</p> <pre>def Fun1(mylist): for i in range(len(mylist)): if mylist[i]%2==0: mylist[i]/=2 else: mylist[i]*=2 list1 =[21,20,6,7,9,18,100,50,13] Fun1(list1) print(list1)</pre>
Ans	[42, 10.0, 3.0, 14, 18, 9.0, 50.0, 25.0, 26]

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