

DELHI PUBLIC SCHOOL, JAMMU
SESSION: (2021-2022)

FOUNDATION WORKSHEET

SUBJECT: COMPUTER SCIENCE
CLASS: XII
TOPIC/Lesson : Revision in Python (class XI)

1	Which of the following is a valid arithmetic operators in Python (i) // (ii) ? (iii) < (iv) and
2	Which of the following operator(s) are valid logical operators (i) Like (ii) and (iii) or (iv) is
3	What will be the output of following expressions: (i) 7/2 (ii) 7//2
4	If given A=20, B=15, C=30, What will be the output of following expression: print((A>B) and (B>C) or (C>A))
5	What will be the output of following expressions: (i) 15//2 (ii) 15%2
6	What will be the output of following expression: 2**2**4
7	Write the type of tokens from the following (i) If (ii) roll_no
8	Identify the valid identifier(s) from the given list: Marks1, \$Roll, Avg Marks, IF, _sales2008, while, name
9	Identify the invalid identifiers from the given list: Average, RegNo. , break, Sales_Q1
10	Write the datatype of following literals: (i) 100 (ii) False
11	Write the datatype of following literals: (i) 50.7 (ii) "India"
12	What will be the output of following code: print(print(10))
13	Name the Python Library module which need to be imported to invoke the following function: (i) floor() (ii) bar() (iii) randint() (iv) sin() (v) linspace() (vi) connect() (vii) dump() (viii) insort()
14	Rewrite the following code in python after removing all syntax error(s). Underline each correction done in the code. 30=To for K in range(0,To) IF k%4==0: print (K*4) Else: print (K+3)
15	Rewrite the following code in python after removing all syntax error(s). Underline each correction done in the code: a=5 work=true b=hello c=a+b FOR i in range(10) if i%7=0: continue

16	<pre>for Name in [Ramesh, Suraj, Priya] IF Name[0]='S': print(Name)</pre>
17	<p>Rewrite the following code in python after removing all syntax error(s). Underline each correction done in the code:</p> <pre>a=b=10 c=a+b While c=<20: print(c,END="*") c+=10</pre>
18	<p>Find and write the output of the following python code:</p> <pre>def fun(s): k=len(s) m=" " for i in range(0,k): if s[i].isupper(): m=m+s[i].lower() elif s[i].isalpha(): m=m+s[i].upper() else: m=m+'bb' print(m) fun('school2@com')</pre>
19	<p>Find and write the output of the following python code:</p> <pre>msg = "Technology 2025" print(msg[3:]) print(msg[:4],msg[4:]) print(msg[::-1]) print(msg[0:4],msg[11:10])</pre>
20	<p>Find and write the output of the following python 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>

21	<p>Find and write the output of the following python code:</p> <pre> Msg="CompuTer" Msg1="" for i in range(0, len(Msg)): if Msg[i].isupper(): Msg1=Msg1+Msg[i].lower() elif i%2==0: Msg1=Msg1+'*' else: Msg1=Msg1+Msg[i].upper() print(Msg1) </pre>
22	<p>Find and write the output of the following python code:</p> <pre> P=6 Q=5 while P<=25: Q+=10 P+=5 print(P) print(Q) </pre>
23	<p>Find and write the output of the following python code:</p> <pre> for i in range(1,6): for j in range(1,6): if i==j: break print(j, end="") print() </pre>
24	<p>How many times will the following for loop execute and what's the output?</p> <pre> for i in range(1,3,1): for j in range(i+1): print(",") </pre>
25	<p>What will be the output of the following code:</p> <pre> def JumbleUp(mystr): L = len(mystr) str2="" str3="" for i in range(0,L,2): str2=str2 + mystr[i+1]+mystr[i] for ch in str2: if ch>='R' and ch<='U': str3+='\$' else: str3+=ch.lower() return str3 mystr="HARMONIOUS" mystr=JumbleUp(mystr) print(mystr) </pre>

26	<p>Find the write the output of the following code:</p> <pre>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)</pre>
27	<p>Find and write the output of following python code:</p> <pre>def Alter(M,N=50): M=M+N N=M- N print(M,"@",N) return M A=200 B=100 A = Alter(A,B) print(A,"#",B) B = Alter(B)</pre>
28	<p>Find and write the output of following python 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>
29	<p>Find and write the output of following python 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>
30	<p>Find and write the output of following python code:</p> <pre>def Func1(A,B): if A % B == 0: return 10 else: return A + Func1(A,B-1) val = Func1(20,15) print(val)</pre>

31	<p>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 variables FROM and TO.</p> <pre>import random AR=[20,30,40,50,60,70]; FROM=random.randint(1,3) TO=random.randint(2,4) for K in range(FROM,TO+1): print (AR[K],end="#"")</pre> <p>(i) 10#40#70# (ii) 30#40#50# (iii) 50#60#70# (iv) 40#50#70#</p>				
32	<p>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 variables BEGIN and END.</p> <pre>import random RUNS = [40,55,60,35,70,50] BEGIN = random.randint(0,2) END = random.randint(1,3) for i in range(BEGIN,END+1): print(RUNS[i],end='#')</pre> <table border="1" data-bbox="256 1171 1344 1245"> <tr> <td>(i) 60#35#</td> <td>(ii) 60#35#70#50#</td> </tr> <tr> <td>(iii)35#70#50#</td> <td>(iv) 40#55#60#</td> </tr> </table>	(i) 60#35#	(ii) 60#35#70#50#	(iii)35#70#50#	(iv) 40#55#60#
(i) 60#35#	(ii) 60#35#70#50#				
(iii)35#70#50#	(iv) 40#55#60#				
33	<p>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 variables BEGIN and END.</p> <pre>import random PICKER=random.randint(0,3) COLORS=["BLUE","PINK","GREEN","RED"] for I in COLORS: for J in range(1,PICKER): print(I,end="") print()</pre> <table border="1" data-bbox="256 1623 1344 1959"> <tr> <td>(i) BLUE PINK GREEN RED</td> <td>(ii) BLUE BLUEPINK BLUEPINKGREEN BLUEPINKGREENRED</td> </tr> <tr> <td>(iii) PINK PINKGREEN PINKGREENRED</td> <td>(iv) BLUEBLUE PINKPINK GREENGREEN REDRED</td> </tr> </table>	(i) BLUE PINK GREEN RED	(ii) BLUE BLUEPINK BLUEPINKGREEN BLUEPINKGREENRED	(iii) PINK PINKGREEN PINKGREENRED	(iv) BLUEBLUE PINKPINK GREENGREEN REDRED
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(iii) PINK PINKGREEN PINKGREENRED	(iv) BLUEBLUE PINKPINK GREENGREEN REDRED				

34 Find the output of following Python Code.

```
Msg1="WeLcOME"  
Msg2="GUeSTs"  
Msg3=""  
for I in range(0,len(Msg2)+1):  
    if Msg1[I]>="A" and Msg1[I]<="M":  
        Msg3=Msg3+Msg1[I]  
    elif Msg1[I]>="N" and Msg1[I]<="Z":  
        Msg3=Msg3+Msg2[I]  
    else:  
        Msg3=Msg3+"*"  
print Msg3
```

35 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 minimum values that can be assigned to each of the variables BEGIN and LAST.

```
import random  
  
VALUES=[10,20,30,40,50,60,70,80];  
BEGIN=random.randint(1,3)  
LAST =random.randint(BEGIN,4)  
  
for I in range(BEGIN, LAST+1):  
    print VALUES[I], "-"
```

(i) 30 - 40 - 50 -	(ii) 10 - 20 - 30 - 40 -
(iii) 30 - 40 - 50 - 60 -	(iv) 30 - 40 - 50 - 60 - 70 -

36 Differentiate between Syntax Error and Run time Error. Also write a suitable example in Python to illustrate both.

37	<p>Find and write the output of the following Python code :</p> <pre> Data = ["P",20,"R",10,"S",30] 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>
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Qno. 2

1	What do you understand by the term Iteration?
2	What is the purpose of „break“ keyword in Loop?
3	What is the difference between List and Tuple?
4	What are the different ways to give comment in Python?
5	What are the correct ways to generate numbers from 0 to 20 (i) range(20) (ii) range(0,21) (iii) range(21) (iv) range(0,20)
6	Name any 2 data types of Python
7	What are the different loops available in Python?
8	What do you understand by the term Recursion?
9	Give any 1 difference between Loop and Recursion
10	What is Mutable data type? Give any example of Mutable data type.
11	Which is the correct form of declaration of dictionary? (i) Day={1:"monday",2:"tuesday",3:"wednesday"} (ii) Day=(1;"monday",2;"tuesday",3;"wednesday") (iii) Day=[1:"monday",2:"tuesday",3:"wednesday"] (iv) Day={1"monday",2"tuesday",3"wednesday"}
12	Choose the correct declaration from the following code: Info = ({„roll“:[1,2,3],„name“:[„amit“,„sumit“,„rohit“]}) (i) List (ii) Dictionary (iii) String (iv) Tuple
13	Which is the valid dictionary declaration? i) d1={1:'January',2:'February',3:'March'} ii) d2=(1:'January',2:'February',3:'March') iii) d3={1:'January',2:'February',3:'March'} iv) d4={1:January,2:February,3:March}
14	Given the following dictionary declaration: Myd={„empno“:1,„name“:„hari“,„salary“:50000} write python statement to print the message: mjamwal2000@gmail

15	<p>What is/are not true about Python's Dictionary?</p> <p>(i) Dictionaries are mutable (ii) Dictionary items can be accessed by their index position (iii) No two keys of dictionary can be same (iv) Dictionary keys must be of String data type</p>
16	<p>Given the following declaration:</p> <pre>Myd={"empno":1,"name":"hari","salary":50000}</pre> <p>Raj, Python programmer wants to print all the keys of dictionary and values stored in dictionary, Help Raj by filling the blanks given in print() statements to achieve the task:</p> <pre>print(_____) print(_____)</pre>
17	<p>Identify the valid declaration of L:</p> <pre>L = [1, 23, "hi", 6].</pre> <p>(i) list (ii) dictionary (iii) array (iv) tuple</p>
18	<p>Identify the correct option to print the value 80 from the list</p> <pre>L=[10,20,40,80,20,5,55]</pre> <p>(i) L[80] (ii) L[4] (iii) L[L] (iv) L[3]</p>
19	<p>Identify the valid declaration of Rec:</p> <pre>Rec=(1,"Vikrant,50000)</pre> <p>(i)List (ii) Tuple (iii) String (iv) Dictionary</p>
20	<p>Given String STR="COMPUTER", choose the correct option(s) to print reverse of string.</p> <p>(i)STR[::-1] (ii)STR[0,LEN(str)] (iii) STR[-1:-1:0] (iv) STR[-1:-len(STR)-1:-1]</p>
21	<p>What will be the output of following python code:</p> <pre>for i in range(1,12): if i%2==0: continue print(i)</pre>
22	<p>What will be the output of following python code:</p> <pre>for i in range(1,12): if i%6==0: break print(i)</pre>
23	<pre>x="abAbcAba" for w in x: if w=="a": print("*") else: print(w)</pre>
24	<p>What will be the output of following python code:</p> <pre>num=1 while num==1: print(num) num+=1 print(num*10)</pre>

25	<p>Find and write the output of the following python code:</p> <pre> a=10 def call(): global a a=15 b=20 print(a) call() </pre>
26	<p>Find and write the output of following python code:</p> <pre> a=100 def show(): global a a=200 def invoke(): global a a=500 show() invoke() print(a) </pre>
27	<p>Find and write the output of following python code:</p> <pre> def drawLine(ch,time=3): print(ch*time) drawLine('@',5) drawLine(chr(65)) </pre>
28	<p>What do you understand by local and global scope of variables? How can you access a global variable inside the function, if function has a variable with same name.</p>
29	<p>What do you understand the default argument in function? Which function parameter must be given default argument if it is used? Give example of function header to illustrate default argument</p>
30	<p>What are the different types of Passing parameters in Python? Give example of any one.</p>
31	<p>Write to create Pie chart for sequence con=[24.5,19.2,25,30,45] for Zones =["East", "West", "North", "South", "Central"]</p> <ul style="list-style-type: none"> - Show % contribution for each zone - The Pie should be circular <p>OR</p> <p>Give the output of the following python code: import matplotlib.pyplot as plt</p> <pre> x=[1,2,3] y=[5,3,7] x2=[1,2,3] y2=[8,4,9] plt.xlabel('X Axis') plt.ylabel('Y Axis') plt.title('My First Chart\nHave fun!') plt.plot(x,y,label='Overs',color='r') plt.plot(x2,y2,label='Runs',color='g') plt.legend() plt.show() </pre>

32	<p>Output?</p> <pre>a = 1 def f(): a = 10 print(a)</pre>
33	Which file must be present inside a directory to be considered by Python as a library?
34	<p>Convert the following using while loop</p> <pre>for k in range (10,20,5): print(k)</pre>
35	<p>Give Output</p> <pre>colors=["violet", "indigo", "blue", "green", "yellow", "orange", "red"] del colors[4] colors.remove("blue") colors.pop(3) print(colors)</pre>
36	Consider the following unsorted list: 95 79 19 43 52 3. Write the passes of bubble sort for sorting the list in ascending order till the 3rd iteration
37	<p>Rewrite the following Python program after removing all the syntactical errors (if any), underlining each correction:</p> <pre>def checkval: x = input("Enter a number") if x % 2 = 0: print x, "is even" else if x<0: print x, "should be positive" else; print x, "is odd"</pre>
38	<p>Output?</p> <pre>def myfunc(a): a = a + 2 a = a * 2 return a print(myfunc(2))</pre>
39	<p>Output?</p> <pre>def example(a): a = a + '2' a = a*2 return a example("hello")</pre>