INTERNATIONAL INDIAN SCHOOL BURAIDAH

Worksheet for the Academic Year 2023-24

CLASS:**XII** SUBJECT: **Computer Science**

LESSON :1,2[PYTHON REVISION TOUR]

1	„Welcome" is_____literals
Ans.	string
2	$ symbol can be used in naming an identifier (True/False)
Ans.	False
3	Write any 2 data types available in Python
Ans.	int, bool
4	**„Division by zero"** is an example of_____error.
Ans.	Runtime Error
5	**range(1,10)** will return values in the range of_____to _____
Ans.	**1 to 9**
6	**randint(1,10)** will return values in the range of_____to _____
Ans.	**1 to 10**
7	"Computer Science"[0:6] = _____ "Computer Science"[3:10] = _____ "Computer Science"[::-1] = _____ "Computer Science"[-8:]=
Ans.	"Computer Science"[0:6] = Comput "Computer Science"[3:10] = puter S "Computer Science"[::-1] = ecneicS retupmoC "Computer Science"[-8:] = Science
8	**Output of :** print("Ok"*4 + "Done")
Ans.	**OkOkOkOkDone**
9	**Output of :** print(print("Why?"))
Ans.	**Why?** **None**
10	Raj was working on application where he wanted to divide the two number (A and B) , he has written the expression as C = A/B, on execution he entered 30 and 7 and expected answer was 4 i.e. only integer part not in decimal, but the answer was 4.285 approx, help Raj to correct his expression and achieving the desired output. **Correct Expression :** _____
Ans.	C = A//B
11	**Can you guess the output?** C = -11%4 print(C)
Ans.	**1**

12	Write 2 advantages and disadvantages of Python programming language
Ans.	Advantages 1) Easy to Use 2) Expressive Language Disadvantages 1) Slow because of interpreted 2) Not strong on type binding
13	**Identify the valid and Invalid identifiers names:** Emp-Code, _bonus, While, SrNo. , for, #count, Emp1, 123Go, Bond007
Ans.	**Valid: _bonus, While, Emp1,Bond007** **Invalid : Emp-code, SrNo., for,#count,123Go**
14	**Identify the type of literals for each:** (i) 123 (ii) „Hello" (iii) „Bye\nSee You" (iv) „A" (v) 345.55 (vi) 10+4j (vii) 0x12
Ans.	**(i) Int** **(ii) String** **(iii) String** **(iv) String** **(v) Float** **(vi) Complex** **(vii) Int**
15	**What is the size of each string?** (i) „Python" (ii) „Learning@\nCS" (iii) „\table"
Ans.	**(i) 6** **(ii) 12** **(iii) 5**
16	**Output of :** (i) True + True = (ii) 100 + False = (iii) -1 + True = (iv) bool(-1 + True) =
Ans.	**(i) 2** **(ii) 100** **(iii) 0** **(iv) False**
17	**Output of** (i) 2 * 7 = _____ (ii) 2 ** 7 = _____ (iii) 2**2**3 = _____ (iv) 17 % 20 = _____ (v) not(20>6) or (19>7) and (20==20) =
Ans.	**(i) 14** **(ii) 128** **(iii) 256** **(iv) 17** **(v) True**

18	**Output of :** a,b,c = 20,40,60 b+=10 c+=b print(a,b,c)
Ans.	**20 50 110**
19	Write a program to enter 2 number and find sum and product
Ans.	n1 = int(input('Enter num1 ')) n2 = int(input('Enter num2 ')) s = n1 + n2 p = n1 * n2 print('Sum=',s) print('Product =',p)
20	Write a program to enter temperature in Fahrenheit and convert it in Celsius
Ans.	f = int(input('Enter temperature (Fahrenheit) ')) c = (f-32)*5/9 print('Celcus =',c)
21	Write a program to enter any money and find out number of denominations can be used to make that money. For e.g. if the money entered is 2560 Then output should be 2000 = 1 500 = 1 200 = 0 100 =0 50 =1 20 = 0 10 = 1 5 = 0 2 = 0 1 = 0 Hint : use % and // operator (Without Loop / Recursion)
Ans.	amount = int(input('Enter Amount ')) n2000 = amount//2000 amount = amount % 2000 n500 = amount//500 amount = amount % 500 n200 = amount//200 amount = amount %200 n100 = amount//100 amount = amount %100 n50 = amount//50 amount = amount %50 n20 = amount//20 amount = amount %20 n10 = amount // 10 amount = amount %10 n5 = amount // 5 amount = amount % 5 n2 = amount//2 amount = amount % 2

	n1 = amount//1 amount = amount % 1 print('2000=',n2000) print('500=',n500) print('200=',n200) print('100=',n100) print('50=',n50) print('20=',n20) print('10=',n10) print('5=',n5) print('2=',n2) print('1=',n1)
22	**Consider a list:** MyFamily = [“Father”,”Mother”,”Brother”,”Sister”,”Jacky”] a) write statement to print “Brother” b) write statement to print all items of list in reverse order c) write statement to check “Sister” is in MyFamily or not d) write statement to update “Jacky” with “Tiger” e) write statement remove “Jacky” from MyFamily and also print it f) write statement to add “Tommy” in MyFamily at the end
Ans.	**a) print(MyFamily[2])** **b) print(MyFamily[::-1])** **c) 'Sister' in MyFamily** **d) MyFamily[len(MyFamily)-1]='Tiger'** **OR** **MyFamily[4]=“Tiger“** **e) MyFamily.pop()** **f) MyFamily.append(„Tommy“)**
23	**Consider a Tuple:** Record = (10,20,30,40) Raj wants to add new item 50 to tuple, and he has written expression as Record = Record + 50, but the statement is giving an error, Help Raj in writing correct expression. **Correct Expression : _____**
Ans.	**Record = Record + (50,)**
24	What is the difference between List and Tuple?
Ans.	List is mutable type whereas Tuple is Immutable.
25	What is the difference between List and String?
Ans.	List is mutable type whereas String is immutable. List can store elements of any type like-string, list, tuple, etc. whereas String can store element of character type only.
26	What is ordered and unordered collection? Give example of each
Ans.	Ordered collection stores every elements at index position starts from zero like List, Tuples, string whereas unordered collection stores elements by assigning key to each value not by index like dictionary
27	Consider a Dictionary Employee = {„Empno“:1,“Name“:“Snehil“,“Salary“:80000}

	Write statements: (i) to print employee name (ii) to update the salary from 80000 to 90000 (iii) to get all the values only from the dictionary
Ans.	(i) print(Employee['Name']) (ii) Employee['Salary']=90000 (iii) print(Employee.values())
28	Num = 100 Isok = False print(type(Num)) =_____ print(type(Isok)) = _____
Ans.	<class 'int'> <class 'bool'>
29	**Name the Python Library module which need to be imported to invoke the following function:** a) floor() b) randrange() c) randint() d) sin()
Ans.	**a) math** **b) random** **c) random** **d) math**
30	**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)
Ans.	**To=30** **for K in range(0,To):** **if K%4==0:** **print(K*4)** **else:** **print(K+3)**
31	**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
Ans.	**a=5** **work=True** **b='hello'**

	c = a + b **for i in range(10):** **if i%7==0:** **continue**
32	Rewrite the following code in python after removing all syntax error(s). Underline each correction done in the code: for Name in [Ramesh,Suraj,Priya] IF Name[0]='S': print(Name)
Ans.	for Name in [„Ramesh“,“Suraj“,“Priya“]: if Name[0]=='S': print(Name)
33	**Rewrite the following code in python after removing all syntax error(s). Underline each correction done in the code:** a=b=10 c=a+b While c=<20: print(c,END="*") c+=10
Ans.	a=b=10 c=a+b while c<=20: print(c,end="*") c+=10
34	**Choose the correct possible answer(s)** a = random.randint(1,5) b = random.randint(1,3) c = random.randint(2,6) print(a,b,c) (i) 2 1 3 (ii) 4 4 4 (iii) 3 2 1 (iv) 5 3 5
Ans.	**(i) (iv)**
35	What is type conversion in Python? What are different types of conversion? Illustrate with example.

Ans.	Type conversion refers to conversion of one data type to another data type for e.g. string is converted to int. There are 2 types of conversion:
	1) **Implicit:** in this of conversion, it is automatically done by the interpreter without user intervention.
	Example:
	Num = [10,20,30]
	print(type(Num[1])) # int
	Num[1] = Num[1] + 4.5 # it will automatically convert to float
	Print(type(Num[1])) # float
	2) **Explicit:** in this type of conversion, user will convert any type of value to its desired type. For example string to int.
	Example:
	num = int(input(„Enter number „))
	#in the above code input of string type will be converted explicitly in int.

36	**Fill in the blanks to execute infinite loop:** while_____: print(“spinning”)

Ans.	**while True:** **print("spinning")**
37	Write a program to enter any number and check it is divisible by 7 or not

Ans.	num = int(input('Enter any number '))
	if num % 7 == 0:
	print('Divisible by 7')
	else:
	print('Not divisible by 7')

38	**Fill in the blanks to execute loop from 10 to 100 and 10 to 1** (i) for i in range(_____): print(i) (ii) for i in range(_____): print(i)

Ans.	**(i)**
	for i in range(10,101):
	print(i)
	(ii)
	for i in range(10,0,-1):
	print(i)

39	**What will be the output if entered number (n) is 10 and 11**
	i=2
	while i<n:
	if num % i==0:
	break
	print(i)
	i=i+1
	else:
	print("done")

Ans.	**If n is 10 then when program control enter in loop the if condition will be satisfied and break will execute cause loop to terminate. The else part of while will also be not executed because loop terminated by break. (NO OUTPUT)** **If n is 11 it will print 2 to 10 and then it will execute else part of while loop and print „done" because loop terminate normally without break**

40	**What will be the difference in output**
	(i)
	for i in range(1,10):
	if i % 4 == 0:
	break
	print(i)
	
	(ii)
	
	for i in range(1,10):
	if i % 4 == 0:

```
            continue
      print(i)
```

Ans.

```
(i)
1
2
3
(ii)
1
2
3
5
6
7
9
10
```

41 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.

```
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="#")
```

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

Ans.
Maximum Value of FROM = 3
Maximum Value of TO = 4
Output : (ii)

42 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 and maximum value that can be assigned to the variable PICKER.

```
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()
```

(i) BLUE PINK GREEN RED	(ii) BLUE BLUEPINK BLUEPINKGREEN BLUEPINKGREENRED
(iii) PINK PINKGREEN PINKGREENRED	(iv) BLUEBLUE PINKPINK GREENGREEN REDRED

Ans.
Minimum Value of PICKER = 0
Maximum Value of PICKER = 3
Output: (i) and (iv)

43 **What are the correct ways to generate numbers from 0 to 20**

	range(20) (ii) range(0,21) (iii) range(21) (iv) range(0,20)
Ans.	**(ii) And (iii)**
44	**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"]
Ans.	**(i)**
45	**Choose the correct declaration from the following code:** Info = ({„roll":[1,2,3],"name":[„amit","sumit","rohit"]}) List (ii) Dictionary (iii) String (iv) Tuple
Ans.	**(iv) Tuple**
46	**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}
Ans.	**(iii)**
47	**What is/are not true about Python"s Dictionary?** (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
Ans.	**(ii) and (iv)**

48	x="abAbcAba"
	for w in x:
	if w=="a":
	print("*")
	else:
	print(w)

Ans.	* b A b c A b *
49	**Convert the following „for" loop using „while" loop** for k in range (10,20,5): print(k)
Ans.	**k = 10** **while k<=20:** **print(k)** **k+=5**
50	**Give Output** colors=["violet", "indigo", "blue", "green", "yellow", "orange", "red"] del colors[4]

	colors.remove("blue") p=colors.pop(3) print(p, colors)
Ans.	**orange ['violet', 'indigo', 'green', 'red']**

51	**Output of following code:**
	A=10
	B=15
	S=0
	while A<=B:
	  S = A + B
	  A = A + 10
	  B = B + 10
	  if A>=40:
	  A = A + 100
	print(S)

Ans.	**65**

52	**Output of the following code:**
	X = 17
	if X>=17:
	  X+=10
	else:
	  X-=10
	print(X)

Ans.	**27**
53	**How many times loop will execute:** P=5 Q=35 while P<=Q: P+=6
Ans.	**6 times**

54	**Find and write the output of the following python code:**
	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)

Ans.	**cO*P*t*R**
55	A=10 B=10 print(A == B) = ? print(id(A) == id(B) = ? print(A is B) = ?
Ans.	True True True