Answers - 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	**Write statement to call the function.** def Add(): X = 10 + 20 print(X) _____ #statement to call the above function
Ans	Add()
5	**Write statement to call the function.** def Add(X,Y): Z = X+Y print(Z) _____ #statement to call the above function
Ans	Add(10,20) # Parameter value is user dependent
6	**Write statement to call the function.** def Add(X,Y): Z = X+Y return Z _____#statement to call the above function print("Total =",C)
Ans	C = Add(10,20) # Parameter value is user dependent

7	**Which Line Number Code will never execute?**
	def Check(num): #Line 1
	if num%2==0: #Line 2
	print("Hello") #Line 3
	return True #Line 4
	print("Bye") #Line 5
	else: #Line 6
	return False #Line 7
	C = Check(20)
	print(C)

Ans	Line 5

8	**What will be the output of following code?**
	def Cube(n):
	print(n*n*n)
	
	Cube(n) # n is 10 here
	print(Cube(n))

Ans	1000 1000 None

9	What are the different types of actual arguments in function? Give example of any one of them.
Ans	1. Positional 2. Keyword 3. Default 4. Variable length argument Example : (Keyword argument) def Interest(principal,rate,time): return (principal*rate*time)/100 R = Interest(rate=.06, time=7,principal=100000)
10	**What will be the output of following code:** def Alter(x, y = 10, z=20): sum=x+y+z print(sum) Alter(10,20,30) Alter(20,30) Alter(100)
Ans	60 70 130
11	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: def CalculateInterest(Principal,Rate=.06,Time): # code But this code is not working, Can you help Ravi to identify the error in the above function and what is the solution.

Ans	Yes, here non-default argument is followed by default argument which is wrong as per python's syntax.
	Solution:
	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	**Call the given function using KEYWORD ARGUMENT with values 100 and 200** def Swap(num1,num2): num1,num2=num2,num1 print(num1,num2) Swap(_____,_____)
Ans	Swap(num1=100,num2=200)

13	**Which line number of code(s) will not work and why?**
	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

Ans	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"
14	**What will be the output of following code?** def Calculate(A,B,C): return A*2, B*2, C*2 val = Calculate(10,12,14) print(type(val)) print(val)
Ans	<class 'tuple'> (20, 24, 28)
15	What is Local Variable and Global Variables? Illustrate with example

Ans	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.
	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.
	Example:
	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)

16	**What will be the output of following code?**
	def check():
	  num=50
	  print(num)
	
	num=100
	print(num)
	check()
	print(num)

Ans	100 50 100

17	**What will be the output of following code?** def check(): global num num=1000 print(num) num=100 print(num) check() print(num)
Ans	100 1000 1000
18	**What will be the output of following code?** print("Welcome!") print("Iam ",___name__) #___is double underscore
Ans	Welcome! Iam __main___
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	**What will be the output of following code?**
	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")

Ans	exam$$*CBSE*COM
22	**What will be the output of following code?** 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) print(A,"@",B)
Ans	**300 @ 200** **300 # 100** **150 @ 100** **300 @ 150**

23	**What will be the output of following code?**
	
	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())

Ans	4 16 25

24	**What will be the output of following code?**
	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)

Ans	10 # 25 $ 185 18 # 50 $ 318 30 # 100 $ 480
25	**What will be the output of following code?** a=100 def show(): global a a=200

	def invoke(): global a a=500 show() invoke() print(a)
Ans	500
26	**What will be the output of following code?** def drawline(char='$',time=5): print(char*time) drawline() drawline('@',10) drawline(65) drawline(chr(65))
Ans	$$$$$ @@@@@@@@@@ 325 AAAAA

27	**What will be the output of following code?**
	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)

Ans	3 $ 3 6 # 30 6 $ 1 6 # 7 1 $ 1 2 $ 7
28	**What will be the output of following code?** def Fun1(num1): num1*=2 num1 = Fun2(num1) return num1

	def Fun2(num1): num1 = num1 // 2 return num1 n = 120 n = Fun1(n) print(n)
Ans	120

29	**What will be the output of following code?**
	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)

Ans	420 80

30	**What will be the output of following code?**
	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)

Ans	[42, 10.0, 3.0, 14, 18, 9.0, 50.0, 25.0, 26]

For any explanation/query write to me at: vinodexclusively@gmail.com