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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?**
	
	``python
	def Alter(M,N=50):
	  M = M + N N =
	M - N
	  print(M,"@",N)
	  return M
	``

	``python
	    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?**
	
	``python
	    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]