

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. <pre>def Add(): X = 10 + 20 print(X) _____ #statement to call the above function</pre>
Ans	Add()
5	Write statement to call the function. <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	Write statement to call the function. <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	Which Line Number Code will never execute? <pre>def Check(num): if num%2==0: print("Hello") return True print("Bye") else: return False C = Check(20) print(C)</pre> <div style="display: flex; justify-content: flex-end; margin-right: 20px;"> <div>#Line 1</div> <div>#Line 2</div> <div>#Line 3</div> <div>#Line 4</div> <div>#Line 5</div> <div>#Line 6</div> <div>#Line 7</div> </div>
Ans	Line 5
8	What will be the output of following code? <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	<ol style="list-style-type: none"> 1. Positional 2. Keyword 3. Default 4. Variable length argument <p>Example : (Keyword argument)</p> <pre>def Interest(principal,rate,time): return (principal*rate*time)/100</pre> <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)</pre> <p>Alter(10,20,30) Alter(20,30) Alter(100)</p>
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: <pre>def CalculateInterest(Principal,Time, Rate=.06):</pre> 2) Or, give any default value to Time also as: <pre>def CalculateInterest(Principal,Rate=.06,Time=12):</pre>
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	Swap(num1=100,num2=200)

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)</pre> <pre>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</pre> <pre>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)</pre> <pre>num=100 print(num) check() print(num)</pre>
Ans	<pre>100 50 100</pre>

17	What will be the output of following code? <pre>def check(): global num num=1000 print(num) num=100 print(num) check() print(num)</pre>
Ans	100 1000 1000
18	What will be the output of following code? <pre>print("Welcome!") print("Iam",__name__) # __ is double underscore</pre>
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? <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	What will be the output of following code? <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	300 @ 200 300 # 100 150 @ 100 300 @ 150
23	What will be the output of following code? <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	4 16 25
24	What will be the output of following code? <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	10 # 25 \$ 185 18 # 50 \$ 318 30 # 100 \$ 480
25	What will be the output of following code? <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	<p>\$\$\$\$\$</p> <p>@@@@@@@@@@</p> <p>325</p> <p>AAAAA</p>
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	<p>3 \$ 3</p> <p>6 # 30</p> <p>6 \$ 1</p> <p>6 # 7</p> <p>1 \$ 1</p> <p>2 \$ 7</p>
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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