1. What is the output of the following?

i = 0

while i < 5:

print(i)

i += 1

if i == 3:

break

else:

print(0)

a) 0 1 2 0

b) 0 1 2

c) error

d) none of the mentioned

Answer: b  
Explanation: The else part is not executed if control breaks out of the loop.

1. What is the output of the following?

i = 0

while i < 3:

print(i)

i += 1

else:

print(0)

a) 0 1 2 3 0

b) 0 1 2 0

c) 0 1 2

c) error

Answer: b  
Explanation: The else part is executed when the condition in the while statement is false.

1. What is the output of the following?

x = "abcdef"

while i in x:

print(i, end=" ")

a) a b c d e f  
b) abcdef  
c) i i i i i i …  
d) error

Answer: d  
Explanation: NameError, i is not defined.

4. Which of the following commands will create a list?

a) list1 = list()

b) list1 = [].

c) list1 = list([1, 2, 3])

d) all of the mentioned

Answer: d  
Explanation: Execute in the shell to verify

5. Suppose list1 is [4, 2, 2, 4, 5, 2, 1, 0], Which of the following is correct syntax for slicing operation ?  
a) print(list1[0])  
b) print(list1[:2])  
c) print(list1[:-2])  
d) all of the mentioned

Answer: d  
Explanation: Slicing is allowed in lists just as in the case of strings.

6. Suppose list1 is [2, 33, 222, 14, 25], What is list1[-1] ?  
a) Error  
b) None  
c) 25  
d) 2

Answer: c  
Explanation: -1 corresponds to the last index in the list.

7. Suppose list1 is [2, 33, 222, 14, 25], What is list1[:-1] ?  
a) [2, 33, 222, 14].  
b) Error  
c) 25  
d) [25, 14, 222, 33, 2].

Answer: a  
Explanation: Execute in the shell to verify.

8. Which of these about a dictionary is false?  
a) The values of a dictionary can be accessed using keys  
b) The keys of a dictionary can be accessed using values  
c) Dictionaries aren’t ordered  
d) Dictionaries are mutable

Answer: b  
Explanation: The values of a dictionary can be accessed using keys but the keys of a dictionary can’t be accessed using values.

9. Which of the following is not a declaration of the dictionary?  
a) {1: ‘A’, 2: ‘B’}  
b) dict([[1,”A”],[2,”B”]])  
c) {1,”A”,2”B”}  
d) { }

Answer: c  
Explanation: Option c is a set, not a dictionary.

10. What is the output of the following code?

a={1:"A",2:"B",3:"C"}

**for** i,j **in** a.items():

**print**(i,j,end=" ")

a) 1 A 2 B 3 C  
b) 1 2 3  
c) A B C  
d) 1:”A” 2:”B” 3:”C”

Answer: a  
Explanation: In the above code, variables i and j iterate over the keys and values of the dictionary respectively.

11. What is the output of the following piece of code?

a={1:"A",2:"B",3:"C"}

**print**(a.get(1,4))

a) 1  
b) A  
c) 4  
d) Invalid syntax for get method

Answer: b  
Explanation: The get() method returns the value of the key if the key is present in the dictionary and the default value(second parameter) if the key isn’t present in the dictionary.

12. Which are the advantages of functions in python?  
a) Reducing duplication of code  
b) Decomposing complex problems into simpler pieces  
c) Improving clarity of the code  
d) All of the mentioned

Answer: d  
Explanation: None.

13. What are the two main types of functions?  
a) Custom function  
b) Built-in function & User defined function  
c) User function  
d) System function

Answer: b  
Explanation: Built-in functions and user defined ones. The built-in functions are part of the Python language. Examples are: dir(), len() or abs(). The user defined functions are functions created with the def keyword.

14. What is called when a function is defined inside a class?  
a) Module  
b) Class  
c) Another function  
d) Method

Answer: d  
Explanation: None.

15. What is the output of the below program ?

**def** C2F(c):

**return** c \* 9/5 + 32

**print** C2F(100)

**print** C2F(0)

a) 212  
32  
b) 314  
24  
c) 567  
98  
d) None of the mentioned

Answer: a  
Explanation: The code shown above is used to convert a temperature in degree celsius to fahrenheit.

16. What is the output of the below program?

1. **def** sum(\*args):
2. '''Function returns the sum
3. of all values'''
4. r = 0
5. **for** i **in** args:
6. r += i
7. **return** r
8. **print** sum.\_\_doc\_\_
9. **print** sum(1, 2, 3)
10. **print** sum(1, 2, 3, 4, 5)

a) 6  
15  
b) 6  
100  
c) 123  
12345  
d) None of the mentioned

Answer: a  
Explanation: We use the \* operator to indicate, that the function will accept arbitrary number of arguments. The sum() function will return the sum of all arguments. The first string in the function body is called the function documentation string. It is used to document the function. The string must be in triple quotes.

17. \_\_\_\_\_ represents an entity in the real world with its identity and behaviour.  
a) A method  
b) An object  
c) A class  
d) An operator

Answer: b  
Explanation: An object represents an entity in the real world that can be distinctly identified. A class may define an object.

18. \_\_\_\_\_ is used to create an object.  
a) class  
b) constructor  
c) User-defined functions  
d) In-built functions

Answer: b  
Explanation: The values assigned by the constructor to the class members is used to create the object.

19. What is the output of the following code?

**class** test:

**def** \_\_init\_\_(self,a="Hello World"):

self.a=a

**def** display(self):

**print**(self.a)

obj=test()

obj.display()

a) The program has an error because constructor can’t have default arguments  
b) Nothing is displayed  
c) “Hello World” is displayed  
d) The program has an error display function doesn’t have parameters

Answer: c  
Explanation: The program has no error. “Hello World” is displayed. Execute in python shell to verify.

20. What is the output of the following code?

**class** Demo:

**def** \_\_init\_\_(self):

**pass**

**def** test(self):

**print**(\_\_name\_\_)

obj = Demo()

obj.test()

a) Exception is thrown  
b) \_\_main\_\_  
c) Demo  
d) test

Answer: b  
Explanation: Since the above code is being run not as a result of an import from another module, the variable will have value “\_\_main\_\_”.

21. When will the else part of try-except-else be executed?  
a) always  
b) when an exception occurs  
c) when no exception occurs  
d) when an exception occurs in to except block

Answer: c  
Explanation: The else part is executed when no exception occurs.

22. Is the following code valid?

**try**:

*# Do something*

**except**:

*# Do something*

**finally**:

*# Do something*

a) no, there is no such thing as finally  
b) no, finally cannot be used with except  
c) no, finally must come before except  
d) yes

Answer: b  
Explanation: Refer documentation.

23. What is the output of the following code?

**def** foo():

**try**:

**return** 1

**finally**:

**return** 2

k = foo()

**print**(k)

a) 1  
b) 2  
c) 3  
d) error, there is more than one return statement in a single try-finally block

Answer: b  
Explanation: The finally block is executed even there is a return statement in the try block.

24. To open a file c:\scores.txt for reading, we use  
a) infile = open(“c:\scores.txt”, “r”)  
b) infile = open(“c:\\scores.txt”, “r”)  
c) infile = open(file = “c:\scores.txt”, “r”)  
d) infile = open(file = “c:\\scores.txt”, “r”)

Answer: b  
Explanation: Execute help(open) to get more details.

25. What is the output?

1. f = None
2. for i in range (5):
3. with open("data.txt", "w") as f:
4. if i > 2:
5. break
6. print(f.closed)

a) True  
b) False  
c) None  
d) Error

Answer: a  
Explanation: The WITH statement when used with open file guarantees that the file object is closed when the with block exits.