**Answer the following multiple-choice questions.**

**1) In Python, a variable must be declared before it is assigned a value:** (1 mark)

1. True
2. False

**2) In Python, a variable may be assigned a value of one type, and then later assigned a value of a different type:**

(1 mark)

1. True
2. False

**3)Which of the following is/are valid variable names? You may choose more than 1.**

(1 mark)

1. route71
2. test\_answer
3. 313somerset
4. return
5. Age

**4) These are some variables names that are scattered over lines of code.**

(1 mark)

**Employer\_name = 1  
employer\_Name = 2  
employer\_name = 3**

**They are**

1. the same variable and its value will be changed
2. the same variable but its value will not be changed
3. different variables but their value will take the last value
4. different variables and values will be as assigned

**5) What is 100 / 25? Write your answer below**

(1 mark)

**6) What is 9 % 4? Write your answer below**

(1 mark)

**7) What is (3 + 4) \* 2 / (3 – 1)? Write your answer below**

(1 mark)

**8) Which of the following is/are true for a Python List?**

1. [‘a’, ‘b’] and [‘b’, ‘a’] represents the same list
2. A list can contain any data type except another list
3. A given object can only appear in a list once
4. You can put as many objects in a list conceptually

(1 mark)

**9) Which of the following are correct about lists?**

1. Immutable
2. Ordered
3. Can be of any size
4. Accessible by names

(1 mark)

**10) What is true for a Python Dictionary?**

1. Dictionary keys are immutable
2. The same key can be used multiple times in a dictionary
3. You can access the value of the dictionary through an integer index
4. You can only use strings for dictionary keys

(1 mark)

**11) Why do we use functions?**

1. Reduce duplicate code
2. Hide implementation details
3. Divide coding work among several programmers
4. Reuse similar code

(1 mark)

**12) How can you do a square root on a number? Place in order of code**

1. a = 64
2. import math
3. a = math.sqrt(a)
4. print(a)

(1 mark)

**13) What are valid function names?**

1. Function
2. \_add\_2\_numbers
3. 2numbersAdd
4. Def

(1 mark)

**14) What variables names are valid and of industrial standard?**

1. isValid
2. \_service\_charge
3. Credit\_Card
4. PIE

(1 mark)

**15) What kind of error is this?**

def add(x, y):

return x – y

1. Compilation Error
2. Runtime Error
3. Logic Error
4. No Error

(1 mark)

**16) Why do you need to perform unit testing?**

1. Automate debugging and testing process
2. Test small units of code to make sure they are fit to use
3. To find runtime and logic errors

(1 mark)

**17) When should you perform unit testing?**

1. As many times as you like
2. Before sending to the Client
3. Whenever your code is changed
4. Once after you created the unit test

(1 mark)

**18) To test for the below function, what are some values to use for a unit test? Write your answer below**

def test\_function(x, y):

return x / y

(2 mark)

**19) How many unit tests should you write for each of your function?**

1. 1
2. 2
3. 3
4. As many to cover all scenarios

(1 mark)