Lesson: 1: Review of Python

A.   (Q1 to Q20) There are four options against each question. Choose the option which you   consider the most appropriate as your answer.

1. Which of these in not a core data type?
a) Lists
b) Dictionary
c) Tuples
d) Class

2. Given a function that does not return any value, What value is thrown by default when executed in shell.
a) int
b) bool
c) void
d) None

3. Following set of commands are executed in shell, what will be the output?
>>>str="hello"
>>>str[:2]
>>>
a) he
b) lo
c) olleh
d) hello

4. Which of the following will run without errors?
a) round(45.8)
b) round(6352.898,2,5)
c) round()
d) round(7463.123,2,1)

5. What is the return type of function id ?
a) int
b) float
c) bool
d) dict

6. In python we do not specify types,it is directly interpreted by the compiler, so consider the following operation to be performed.
>>>x = 13 ? 2
objective is to make sure x has a integer value, select all that apply (python 3.xx)
a) x = 13 // 2
b) x = int(13 / 2)
c) x = 13 % 2

d) All of the mentioned

7. What error occurs when you execute?
apple = mango
a) SyntaxError
b) NameError
c) ValueError
d) TypeError

8. Carefully observe the code and give the answer.

```
def example(a):
    a = a + '2'
     a = a*2
    return a
>>>example("hello")
```
a) indentation Error
b) cannot perform mathematical operation on strings
c) hello2
d) hello2hello2

9. What data type is the object below ?
L = [1, 23, 'hello', 1].
a) list
b) dictionary
c) array
d) tuple

10. In order to store values in terms of key and value we use what core data type.
a) list
b) tuple
c) class
d) dictionary

11. Which of the following results in a SyntaxError ?
a) '"Once upon a time…", she said.'
b) "He said, 'Yes!'"
c) '3\'
d) '"That's okay"'

12. What is the average value of the code that is executed below ?

```
>>>grade1 = 80
>>>grade2 = 90
>>>average = (grade1 + grade2) / 2
```
a) 85
b) 85.1
c) 95
d) 95.1

13. Select all options that print
hello-how-are-you
a) print('hello', 'how', 'are', 'you')
b) print('hello', 'how', 'are', 'you' + '-' * 4)
c) print('hello-' + 'how-are-you')
d) print('hello' + '-' + 'how' + '-' + 'are' + 'you')

14. What is the return value of trunc() ?
a) int
b) bool
c) float
d) None

15. What is the output of print 0.1 + 0.2 == 0.3?
a) True
b) False
c) Machine dependent
d) Error

16. Which of the following is not a complex number?
a) k = 2 + 3j
b) k = complex(2, 3)
c) k = 2 + 3l
d) k = 2 + 3J

17. What is the type of int?
a) Boolean
b) Integer
c) Float
d) Complex

18. What does ~4 evaluate to?
a) -5
b) -4
c) -3
d) +3

19. What does ~~~~~5 evaluate to?
a) +5
b) -11
c) +11
d) -5

20. Which of the following is incorrect?
a) x = 0b101
b) x = 0x4f5
c) x = 19023
d) x = 03964

B. **Short Answer Questions:**

a) What are the advantages of Python Programming Language?

b) Why Python is Interpreted?

c) How list is different from tuple? Wrtie the syntax for declaration of both.

d) What is string? What do you mean by docstirng?

e) What is dictionary? Write the syntax of creating dictionary in Python?

C. **Long Answer Questions:**

a) Input a list of numbers and swap elements at the even location with the elements at the odd location.

b) Input a list of elements, sort in ascending/descending order using Bubble/Insertion sort.

c) Input a list/tuple of elements, search for a given element in the list/tuple.

d) Input a list of numbers and test if a number is equal to the sum of the cubes of its digits. Find the smallest and largest such number from the given list of numbers.

e) Create a dictionary with the roll number, name and marks of n students in a class and display the names of students who have marks above 75.