Quiz-1
Python Basics

Q1- What is the difference between Set and Tuple? Explain with example.

Q2- Explain the difference between Dictionary and List.

Q3- Set items are unchangeable. What does it mean?

Q4- How to create a collection that will hold only unique values?

Q5- fruits = {"apple", "banana", "cherry"}

What type of collection is this? Can we add another "apple" in this collection and why?

Q6- numbers = [10, 35, 24, 18, 30, 41, 20, 13, 9, 12]

What is the value of numbers[1:3] ?

Q7- x = 'yes' * 5. What will be the value of x?
Q8- a = [24, 42, 11, 30, 19]. What is the best way to sort this list?

Q9- What is the difference between these two collections?

collection1 = [1, 2, 3, 'a', 'b', 'c']

collection2 = (1, 2, 3, 'a', 'b', 'c')

Q10- How can we create a dictionary from this list?

person = [('name', 'John'), ('age', 50)]

Q11- What is the difference between the following methods? To which collection, these methods belongs?

   a) **setdefault()**
   b) **get()**
   c) **update()**

Q12- What is the difference between following methods of dictionary:

   a) **keys()**
   b) **values()**
   c) **items()**

Q13- numbers = [8, 7, 3, 7, 1, 9, 8, 1, 0, 2, 6, 4, 3, 5, 2]

How can we remove duplicates from this list?

Q14- What will be the values of the following variables a, b, c, d and e?

i)   a = '' or 'python'

ii)   b = 'python' or ''

iii)   c = 'None or False' or None

iv)   d = False or True

v)   e = False or None or ''

Q15- a = 'python is great!'

How can we reverse this string?

Q16- What results will be produced when the following code runs?

a = ['', '\tabc', 'a\nb', 'ab\n']

for value in a:

       print(value.strip() or 'bad data')

Q17- Can we return more than one variables from a function? Explore with an example

Q18- What is the difference between shallow copy and deep copy in python? Explain with an example

Q19- What will be the results of a in following code?

a = {1, 4, 5, (9, 8, 7)}

Q20- What will be the results of a in following code?

a = {1, 4, 5, [9, 8, 7]}

Q21- What is the best way to concatenate two strings in python?

Q22- What value will be returned from the following function?

a = [555, 444]

test(a)

def test(param1):

       param1.append(555)

       return param1

Q22- What are Python namespaces?

Q23- What are decorators in Python?

Q24- What is slicing in Python?

Q25- What are the generators in python?

Q26- Consider this list: names = ['john smith', 'john doe', 'alexander', 'IMRAN KHAN']

Write a one liner code to capitalize first letter of each word in a list. For example: ['John Smith', …..]

Q27- Write a one liner code to print "B" if b is not null else "Null"

a = ''

b = a

Q28- Write a one liner code to sort the numbers as integer in following list.

numbers = ["1", "4", "0", "6", "9"]

Q28- What are the usage and difference between match, search, sub and findall methods in re module?

Q29- How to match a string in python using regex without considering its lower or upper case?

Q30- Write a program to create an empty function in python.

Q31- What is the output of print(list * 2) if list = ['abcd', 786, 2.23, 'Pakistan']

Q32- Generate a list of 10 numbers using range() as 10, 20, 30,…, 100. Iterate over this list and print the index and value of each element.

Q33- Write code to generate a list from the dictionary keys.

Q34- Consider following dictionary:

python_dict = {'name': 'python', 'type': 'programming language'}

Write a code to shuffle the keys and values so that keys become values and values become keys.

Q35- Consider following two lists. What are the ways to join these two lists into a single list?

list1 = ["a", "b", "c"]
list2 = [1, 2, 3]

Q36- Consider a string: string = 'My country is Pakistan'

How can we create a list from this string so that each word will become an element of the list?

Q37- Consider a list: list = ['My', 'country', 'is', 'Pakistan']

Write a code to convert this list into following string:

'My country is Pakistan'

Q38- Write a program to generate a list of numbers from 0-100. Create a list of strings with two values 'even' and 'odd' by iterating through that generated list of numbers and check each number. If the corresponding number is even, then append the string 'even' to the results list, otherwise append 'odd' if the number is odd. You have to use list comprehension.

Q39- Explain the difference between extend and append of list methods with an example.

Q40- What is the difference between "remove" and "pop" of list methods?