1. **Choose the correct return value to get output as 20.**

```
def afunction():
    aTuple = ("Orange",[10,20,30],(5,15,25))
    # return statement
```

**Options**:

**A.** `return aTuple[1:2][1]`

**B.** `return aTuple[2][1]`

**C.** `return aTuple[1:2](1)`

**D.** `return aTuple[1][1]`

2. **Choose the correct option.**

**Options:**

**A.** Both lists and tuples are immutable
**B.** Lists are immutable whereas tuples are mutable
**C.** Tuples are immutable whereas lists are mutable
**D.** Both lists and tuples are mutable

3. **Which of these about a set is not true?**

**Options:**

**A.** Mutable data type
**B.** Allows duplicate values
**C.** Data type with unordered values
**D.** Immutable data type

4. **What is the output of the following code?**

```
a = {5,4}
b = {1,2,3,4,5}
print(a>b)
```

**Options:**

**A.** {1,2,3}
**B.** False
**C.** True
**D.** Invalid operation

5. **Select the correct value of x to get output as <u>blue</u>?**

```
color = ["violet","indigo","blue","green","yellow","orange","red"]

print(x)
```

Type your ans:

6. **What is the output of the following code?**

```
def funct():
    try:
        return 1
    finally:
        return 2
k = funct()
print(k)
```

**Options**:

**A.** 1 2
**B.** 2
**C.** 1
**D.** Error

7. **What is the output of the following code?**

```
def add(a, b):
    return a+5, b+5

result = add(3, 2)
print(result)
```

**Options**:

**A.** 15
**B.** 3,2
**C.** 8,7
**D.** 5

8. **Consider the following Python function definition:**

```
def cube_root(val):
    """
    Given number, return the cube root of the number
    """
    return val ** (1 / 3)
```

**Which of the expression below is a valid call to the function cube_root?**

**Options:**

A. cube_root 1.0
B. (cube_root 1.0)
C. cube_root (1.0)
D. cube_root.value(1.0)

9. **Suppose d = {“john”:40, “peter”:45}. To obtain the number of entries in dictionary which command do we use?**
   **Options**:
   - **A.** d.size()
   - **B.** len(d)
   - **C.** size(d)
   - **D.** d.len()

10. **The following code has a number of syntactic errors in it. The intended math calculations are correct, so the only errors are syntactic. Fix these errors. Once the code has been fully corrected, it should print out two numbers. The first should be 1.09888451159. Submit the Second number printed in VSCode. Make sure that you enter at least four digits after the decimal point.**

```
define project_to_distance(point_x point_y distance):
    dist_to_origin = (pointx ** 2 + pointy ** 2) ** 0.5
     scale == distance / dist_to_origin
    print point_x * scale, point_y * scale

project-to-distance(2, 7, 4)
```

**Write the code for the following programs:**

1) **Write a program which passes multiple arguments as an input and returns multiple values as result**

2) **Take following punctuation marks and display using switch case like if we enter 1 it will print it is comma, if we enter 2 it will print it is single quote etc. use these punctuation marks (‘ , : ” . / \ ! ; )**

3) **Write a program which repeatedly reads numbers until the user enters “done”. Once “done” is entered, print out the total, count, and maximum and minimum of the numbers. If the user enters anything other than a number, detect their mistake using try and except and print an error message and skip to the next numbers**