1. Which of the following is the correct way to create a list in Python?

A) `list = (1, 2, 3)`
B) `list = [1, 2, 3]`
C) `list = {1, 2, 3}`
D) `list = <1, 2, 3>`

Answer: ✓ B) `list = [1, 2, 3]`

---

2. What is the output of the following code?

```
lst = [1, 2, 3, 4]
print(lst[2])
```

A) `1`
B) `2`
C) `3`
D) `4`

Answer: ✓ C) `3`

---

3. Which of the following methods adds an element at the end of a list?

A) `append()`
B) `insert()`
C) `extend()`
D) `add()`

Answer: ✓ A) `append()`

---

4. What will the following code output?

```
lst = [1, 2, 3]
lst.insert(1, 5)
print(lst)
```

A) `[5, 1, 2, 3]`
B) `[1, 5, 2, 3]`
C) `[1, 2, 3, 5]`
D) `[1, 2, 5, 3]`

Answer: ✓ B) `[1, 5, 2, 3]`

5. Which of the following is a correct way to create a tuple?
A) `t = [1, 2, 3]`
B) `t = (1, 2, 3)`
C) `t = {1, 2, 3}`
D) `t = <1, 2, 3>`

Answer: ✓ B) `t = (1, 2, 3)`

---

6. Tuples in Python are:
A) Mutable
B) Immutable
C) Dynamic
D) None of the above

Answer: ✓ B) Immutable

---

7. How can you access the third element of a tuple `t = (10, 20, 30, 40)`?
A) `t[3]`
B) `t[2]`
C) `t(2)`
D) `t[4]`

Answer: ✓ B) `t[2]`

8. Which of the following correctly defines a Python dictionary?
A) `d = [1: 'a', 2: 'b']`
B) `d = {1: 'a', 2: 'b'}`
C) `d = (1: 'a', 2: 'b')`
D) `d = <1: 'a', 2: 'b'>`

Answer: ✓ B) `d = {1: 'a', 2: 'b'}`

---

9. In a dictionary, data is stored in the form of:
A) Key-value pairs
B) Indexed elements
C) Sequential elements
D) None of the above

Answer: ✓ A) Key-value pairs

---

9. Which mode is used to open a file for writing in Python, creating the file if it doesn't exist?
A) `'r'`
B) `'w'`
C) `'a'`
D) `'x'`

Answer: ✓ B) `'w'`

---

10. What does the following code do?

```
with open('data.txt', 'r') as f:
    content = f.read()
```

A) Writes content to `data.txt`
B) Reads the entire content of `data.txt` into the variable `content`
C) Appends content to `data.txt`
D) Deletes `data.txt`

Answer: ✓ B) Reads the entire content of `data.txt` into the variable `content`

---

11. Which exception is raised when dividing a number by zero in Python?
A) `ValueError`
B) `ZeroDivisionError`
C) `TypeError`
D) `IndexError`

Answer: ✓ B) `ZeroDivisionError`

12. What is the purpose of a `try` block in Python?
A) To define a function
B) To execute code that might raise an exception
C) To handle file operations only
D) To end a loop

Answer: ✓ B) To execute code that might raise an exception

---

13. Which keyword is used to handle exceptions in Python?
A) `catch`
B) `except`
C) `error`
D) `finally`

Answer: ✓ B) `except`

14. Which of the following keywords is used to define a class in Python?

A) `function`
B) `class`
C) `object`
D) `def`

Answer: ✓ B) `class`

---

15. Which of the following correctly creates an object of a class `Person`?

A) `obj = Person`
B) `obj = Person()`
C) `obj = new Person()`
D) `obj = create Person()`

Answer: ✓ B) `obj = Person()`

---

16. In Python OOP, the `__init__()` method is used for:

A) Destroying an object
B) Inheriting a class
C) Initializing a newly created object
D) Deleting a class

Answer: ✓ C) Initializing a newly created object

---

17. What is `self` in Python classes?

A) A keyword to create a new class
B) A reference to the current instance of the class

C) A variable to store class methods
D) A function to initialize the class

Answer: ✓ B) A reference to the current instance of the class

---

18. Which of the following is an example of inheritance in Python?

A) `class Child(Parent):`
B) `class Child:`
C) `def Parent():`
D) `class Parent(Child):`

Answer: ✓ A) `class Child(Parent):`

---

19. What is the output of the following code?

```
class Test:
    x = 10
print(Test.x)
```

A) `0`
B) `10`
C) `None`
D) Error

Answer: ✓ B) `10`

---

20. Polymorphism in Python allows:

A) Objects of different classes to be treated as objects of a common superclass
B) Multiple variables in a class
C) Inheriting multiple classes
D) Hiding private variables

Answer: ✓ A) Objects of different classes to be treated as objects of a common superclass

1. A Python list is _____, which means its elements can be modified after creation.
   Answer: mutable
2. A tuple in Python is _____, so its elements cannot be changed once defined.
   Answer: immutable
3. In a dictionary, data is stored in the form of _____ pairs.
   Answer: key-value
4. The method _____() can be used to add a new element to the end of a list.
   Answer: append
5. To access the value associated with a key `'name'` in a dictionary `d`, we write `d[_____]`.
   Answer: 'name'
6. A Python dictionary stores data in _____ pairs.
   Answer: key-value
7. To create an empty dictionary, we use _____.
   Answer: `{}`
8. The method _____() returns all the keys of a dictionary.
   Answer: keys
9. To open a file in Python, we use the _____() function.
   Answer: open
10. The mode `'r'` is used to _____ a file.
    Answer: read
11. To handle errors that may occur during program execution, we use _____ blocks.
    Answer: try-except
12. If a file operation fails and is not handled, Python raises an _____.
    Answer: exception
13. A class in Python is defined using the _____ keyword.
    Answer: `class`
14. The _____ method is called automatically when a new object of a class is created.
    Answer: `__init__`
15. Variables that belong to a class and are shared by all objects are called _____ variables.
    Answer: class
16. The concept of restricting access to certain parts of an object is called _____.
    Answer: encapsulation
17. The ability of a function or method to take many forms, such as method overriding, is called _____.
    Answer: polymorphism
18. A constructor in Python is a special method used to _____ an object when it is created.
    Answer: initialize
19. An iterator in Python is an object that can be _____, returning one element at a time.
    Answer: traversed
20. The method _____() returns the next item from an iterator.
    Answer: `__next__`

Descriptive Questions

1. Explain briefly about List
2. Explain briefly about Tuple
3. Explain about sorting
4. Explain about classes and objects
5. Explain aboutg Iterators and generators.