1. **What is the primary purpose of typecasting in Python?  
   a) To automatically convert variables to the most efficient data type.  
   b) To explicitly convert a variable from one data type to another.  
   c) To check the data type of a variable.  
   d) To define new data types.  
   Answer: b)**
2. **Which function is used to convert a value to an integer?  
   a) str()  
   b) float()  
   c) int()  
   d) bool()  
   Answer: c)**
3. **What will print(type(str(123))) output?  
   a) <class 'int'>  
   b) <class 'str'>  
   c) <class 'float'>  
   d) <class 'NoneType'>  
   Answer: b)**
4. **Which of the following is NOT a valid Python data type?  
   a) integer  
   b) string  
   c) float  
   d) char  
   Answer: d)**
5. **What is the output of print(10 + '5')?  
   a) 15  
   b) '105'  
   c) An error  
   d) 105  
   Answer: c)**
6. **How can you convert the string "3.14" to a floating-point number?  
   a) int("3.14")  
   b) float("3.14")  
   c) str(3.14)  
   d) double("3.14")  
   Answer: b)**
7. **What will print(bool(0)) output?  
   a) True  
   b) False  
   c) Error  
   d) 0  
   Answer: b)**
8. **What is the output of print(10 / 3) in Python 3?  
   a) 3  
   b) 3.3333333333333335  
   c) 3.33  
   d) Error  
   Answer: b)**
9. **Which function is used to convert a value to a string?  
   a) int()  
   b) float()  
   c) str()  
   d) bool()  
   Answer: c)**
10. **What will print("Hello" + str(123)) output?  
    a) Hello123  
    b) Hello + 123  
    c) Error  
    d) Hello 123  
    Answer: a)**
11. **How do you print multiple values in a single print() statement, separated by spaces?  
    a) print(value1, value2, value3)  
    b) print(value1 + value2 + value3)  
    c) print(value1.value2.value3)  
    d) print("value1 value2 value3")  
    Answer: a)**
12. **What does the end parameter in the print() function control?  
    a) The separator between values.  
    b) The character printed at the end of the output.  
    c) The number of values printed.  
    d) The formatting of the output.  
    Answer: b)**
13. **What will print("Hello", end="") output?  
    a) Hello (followed by a newline)  
    b) Hello (no newline)  
    c) Error  
    d) Nothing  
    Answer: b)**
14. **How do you print a formatted string using f-strings (formatted string literals)?  
    a) print("The value is {}".format(value))  
    b) print(f"The value is {value}")  
    c) print("The value is " + value)  
    d) print("The value is %s" % value)  
    Answer: b)**
15. **What is the output of print(type(1/2))?  
    a) <class 'int'>  
    b) <class 'float'>  
    c) <class 'str'>  
    d) <class 'complex'>  
    Answer: b)**
16. **Which of the following is true about Lists in Python?  
    a) Lists are immutable.  
    b) Lists are ordered collections of items.  
    c) Lists can only contain integers.  
    d) Lists use parentheses.  
    Answer: b)**
17. **Which of the following is true about Tuples in Python?  
    a) Tuples are mutable.  
    b) Tuples are unordered.  
    c) Tuples are defined using square brackets.  
    d) Tuples are defined using parentheses.  
    Answer: d)**
18. **How do you access the first element of a list called my\_list?  
    a) my\_list[1]  
    b) my\_list(0)  
    c) my\_list[0]  
    d) my\_list.first()  
    Answer: c)**
19. **What is the output of len([1, 2, 3, 4])?  
    a) 3  
    b) 4  
    c) 5  
    d) Error  
    Answer: b)**
20. **Which method is used to add an element to the end of a list?  
    a) append()  
    b) insert()  
    c) add()  
    d) extend()  
    Answer: a)**
21. **How do you create an empty list?  
    a) my\_list = {}  
    b) my\_list = ()  
    c) my\_list = []  
    d) my\_list = list()  
    Answer: c)**
22. **What does the following code do? my\_tuple = (1, 2, 3); my\_tuple[0] = 4  
    a) Changes the first element of the tuple to 4.  
    b) Prints an error message.  
    c) Creates a new tuple.  
    d) Does nothing.  
    Answer: b)**
23. **Which of these is a valid way to create a tuple?  
    a) my\_tuple = [1, 2, 3]  
    b) my\_tuple = {1, 2, 3}  
    c) my\_tuple = (1, 2, 3)  
    d) my\_tuple = <1, 2, 3>  
    Answer: c)**
24. **What is the output of [1, 2, 3] + [4, 5, 6]?  
    a) [1, 2, 3, 4, 5, 6]  
    b) [7, 8, 9]  
    c) Error  
    d) [1, 2, 3], [4, 5, 6]  
    Answer: a)**
25. **How do you remove an element from a list at a specific index?  
    a) remove()  
    b) delete()  
    c) pop()  
    d) discard()  
    Answer: c)**
26. **What is list slicing?  
    a) Creating a copy of a list.  
    b) Accessing a portion of a list.  
    c) Removing elements from a list.  
    d) Adding elements to a list.  
    Answer: b)**
27. **What is the output of my\_list = [1, 2, 3, 4]; print(my\_list[1:3])?  
    a) [1, 2]  
    b) [2, 3]  
    c) [1, 2, 3]  
    d) [2, 3, 4]  
    Answer: b)**
28. **Which method is used to find the index of the first occurrence of an element in a list?  
    a) find()  
    b) index()  
    c) search()  
    d) locate()  
    Answer: b)**
29. **What is the difference between append() and extend() for lists?  
    a) append() adds a single element, extend() adds multiple elements.  
    b) append() adds elements to the beginning, extend() adds to the end.  
    c) They do the same thing.  
    d) append() is for tuples, extend() is for lists.  
    Answer: a)**
30. **How do you reverse a list in Python?  
    a) reverse()  
    b) invert()  
    c) flip()  
    d) backwards()  
    Answer: a)**
31. **What is the output of my\_list = [1, 2, 2, 3]; my\_list.remove(2); print(my\_list)?  
    a) [1, 2, 3]  
    b) [1, 3]  
    c) [1, 2, 2, 3]  
    d) Error  
    Answer: b)**
32. **Which of the following is NOT a valid list method?  
    a) sort()  
    b) reverse()  
    c) add()  
    d) insert()  
    Answer: c)**
33. **What does the \* operator do with lists and tuples?  
    a) Multiplies the elements.  
    b) Repeats the list/tuple.  
    c) Concatenates the list/tuple.  
    d) Raises an error.  
    Answer: b)**
34. **What is the output of (1, 2) + (3, 4)?  
    a) (1, 2, 3, 4)  
    b) (4, 6)  
    c) Error  
    d) (1, 2), (3, 4)  
    Answer: a)**
35. **How do you unpack a tuple into variables?  
    a) x, y = my\_tuple  
    b) x = my\_tuple[0]; y = my\_tuple[1]  
    c) [x, y] = my\_tuple  
    d) Both a and b  
    Answer: d)**
36. **Can you have a list inside a tuple?  
    a) Yes  
    b) No  
    c) Only if the list is empty  
    d) Only if the tuple is empty  
    Answer: a)**
37. **What will be the output of print(tuple([1,2,3]))?  
    a) [1,2,3]  
    b) (1,2,3)  
    c) {1,2,3}  
    d) Error  
    Answer: b)**
38. **What will be the output of print(list((1,2,3)))?  
    a) (1,2,3)  
    b) [1,2,3]  
    c) {1,2,3}  
    d) Error  
    Answer: b)**
39. **How can you create a tuple with a single element?  
    a) my\_tuple = (1)  
    b) my\_tuple = (1,)  
    c) my\_tuple = 1  
    d) my\_tuple = [1]  
    Answer: b)**
40. **What happens if you try to assign a value to an element in a tuple?  
    a) The value is updated.  
    b) A new tuple is created.  
    c) An error is raised.  
    d) Nothing happens.  
    Answer: c)**