Reyansh - Test 2

1. Which method adds an element to the end of a list?
   a) insert()
   b) append()
   c) extend()
   d) add()
 Answer: b) append()
 Correct Answer: b) append()
 Status: Correct
 Explanation: The `append()` method adds a single element to the end of a list.

2. What does the list method `pop()` do?
   a) Removes the first element
   b) Removes and returns the last element
   c) Removes all elements
   d) Adds an element
   Provided Answer: b) Removes and returns the last element
   Correct Answer: b) Removes and returns the last element
   Status: Correct
   Explanation: The `pop()` method removes and returns the last element by default, or an element at a specified index.

3. Which method combines two lists into one?
   a) append()
   b) extend()
   c) join()
   d) merge()
   Provided Answer: d) merge()
   Correct Answer: b) extend()
   Status: Incorrect
   Explanation: The `extend()` method adds all elements from one list to another; `merge()` is not a standard list method.

4. What does the `remove()` method do in a list?

a) Removes the element at a specific index
b) Removes the first occurrence of a value
c) Removes all elements
d) Removes the last element
Provided Answer: c) Removes all elements
Correct Answer: a) Removes the element at a specific index
Status: Incorrect
Explanation: The `remove()` method removes the first occurrence of a specified value, not all elements.

5. Which function returns the number of elements in a list?
a) size()
b) count()
c) len()
d) length()
Provided Answer: c) len()
Correct Answer: c) len()
Status: Correct
Explanation: The `len()` function returns the number of elements in a list or other sequence.

6. What is the result of `{1, 2, 2, 3}` in a set?
a) {1, 2, 2, 3}
b) {1, 2, 3}
c) {1, 3}
d) {2, 3}
Provided Answer: a) {1, 2, 2, 3}
Correct Answer: b) {1, 2, 3}
Status: Incorrect
Explanation: A set automatically removes duplicates, so `{1, 2, 2, 3}` becomes `{1, 2, 3}`.

7. Which method adds an element to a set?
a) append()
b) add()

c) insert()
d) extend()
Provided Answer: a) append()
Correct Answer: b) add()
Status: Incorrect
Explanation: The `add()` method adds a single element to a set; `append()` is for lists.

8. What does the `union()` method do in a set?
a) Returns elements common to two sets
b) Returns all elements from both sets
c) Removes elements from a set
d) Returns elements in the first set only
Provided Answer: Not provided
Correct Answer: b) Returns all elements from both sets
Status: Correct
Explanation: The `union()` method returns a new set containing all elements from both sets, without duplicates.

9. What does the `intersection()` method return?
a) Elements unique to one set
b) Elements common to both sets
c) All elements in both sets
d) Elements not in either set
Provided Answer: Not provided
Correct Answer: b) Elements common to both sets
Status: Correct
Explanation: The `intersection()` method returns a set of elements common to both sets.

10. Which method removes an element from a set?
a) remove()
b) pop()
c) delete()
d) discard()
Provided Answer: b) pop()

Correct Answer: b) pop() (Note: `remove()` and `discard()` are also valid
Status: Correct
Explanation: The `pop()` method removes and returns an arbitrary element from a set; `remove()` and `discard()` remove specific elements.

11. What does the `clear()` method do in a set?
a) Removes one element
b) Removes all elements
c) Copies the set
d) Reverses the set
Provided Answer: b) Removes all elements
Correct Answer: b) Removes all elements
Status: Correct
Explanation: The `clear()` method removes all elements from a set, leaving it empty.

12. Which method in a dictionary returns all keys?
a) values()
b) keys()
c) items()
d) get()
Provided Answer: b) keys()
Correct Answer: b) keys()
Status: Correct
Explanation: The `keys()` method returns a view of all keys in a dictionary.

13. What does the `get()` method do in a dictionary?
a) Adds a key-value pair
b) Returns the value for a key, or None if not found
c) Removes a key-value pair
d) Updates a key's value
Provided Answer: b) Returns the value for a key, or None if not found
Correct Answer: b) Returns the value for a key, or None if not found
Status: Correct
Explanation: The `get()` method retrieves the value for a key, returning `None` (or a default) if the key is absent.

14. Which method removes and returns a key-value pair from a dictionary?
a) pop()
b) remove()
c) delete()
d) discard()
Provided Answer: a) pop()
Correct Answer: a) pop()
Status: Correct
Explanation: The `pop()` method removes and returns the value for a specified key in a dictionary.

15. What does the `update()` method do in a dictionary?
a) Merges another dictionary or key-value pairs
b) Clears the dictionary
c) Returns a copy of the dictionary
d) Removes a key
Provided Answer: d) Removes a key
Correct Answer: a) Merges another dictionary or key-value pairs
Status: Incorrect
Explanation: The `update()` method merges another dictionary or key-value pairs into the existing dictionary.

16. Which method returns a list of key-value tuples in a dictionary?
a) keys()
b) values()
c) items()
d) pairs()
Provided Answer: a) keys()
Correct Answer: c) items()
Status: Incorrect
Explanation: The `items()` method returns a view of key-value pairs as tuples; `keys()` returns only keys.

17. What is the result of `tuple[1]` on `tuple = (10, 20, 30)`?
a) 10
b) 20

c) 30
d) Error
Provided Answer: d) Error
Correct Answer: b) 20
Status: Incorrect
Explanation: Indexing a tuple like `tuple[1]` returns the element at index 1, which is `20`.

18. Which function returns the number of occurrences of an element in a tuple?
a) len()
b) count()
c) index()
d) size()
Provided Answer: b) count()
Correct Answer: b) count()
Status: Correct
Explanation: The `count()` method returns the number of occurrences of a specified element in a tuple.

19. Which function returns the index of the first occurrence of an element in a tuple?
a) find()
b) index()
c) search()
d) locate()
Provided Answer: c) search()
Correct Answer: b) index()
Status: Incorrect
Explanation: The `index()` method returns the index of the first occurrence of an element in a tuple.

20. What happens when you try to modify a tuple element like `tuple[0] = 5`?
a) The element is updated
b) A new tuple is created
c) Raises a TypeError
d) No effect

Provided Answer: c) Raises a TypeError
Correct Answer: c) Raises a TypeError
Status: Correct
Explanation: Tuples are immutable, so attempting to modify an element raises a `TypeError`.

21. Which list method reverses the order of elements?
a) sort()
b) reverse()
c) flip()
d) order()
Provided Answer: b) reverse()
Correct Answer: b) reverse()
Status: Correct
Explanation: The `reverse()` method reverses the order of elements in a list in place.

22. What does the `difference()` method do in a set?
a) Returns elements in both sets
b) Returns elements in the first set but not the second
c) Returns common elements
d) Combines both sets
Provided Answer: c) Returns common elements
Correct Answer: b) Returns elements in the first set but not the second
Status: Incorrect
Explanation: The `difference()` method returns elements in the first set that are not in the second set.

23. Which dictionary method removes all key-value pairs?
a) clear()
b) pop()
c) remove()
d) delete()
Provided Answer: d) delete()
Correct Answer: a) clear()
Status: Incorrect

Explanation: The `clear()` method removes all key-value pairs from a dictionary.

24. What does the `copy()` method do in a list?
a) Clears the list
b) Returns a shallow copy of the list
c) Reverses the list
d) Sorts the list
Provided Answer: b) Returns a shallow copy of the list
Correct Answer: b) Returns a shallow copy of the list
Status: Correct
Explanation: The `copy()` method returns a shallow copy of the list, creating a new list with the same elements.

25. Which method checks if a key exists in a dictionary?
a) contains()
b) has_key()
c) in operator
d) find()
Provided Answer: d) find()
Correct Answer: c) in operator
Status: Incorrect
Explanation: The `in` operator checks if a key exists in a dictionary; `find()` is not a dictionary method.

26. Which method sorts a list in ascending order?
a) order()
b) sort()
c) arrange()
d) align()
Provided Answer: b) sort()
Correct Answer: b) sort()
Status: Correct
Explanation: The `sort()` method sorts a list in ascending order in place.

27. What does the `insert()` method do in a list?
a) Adds an element at the end

b) Adds an element at a specific index
c) Removes an element
d) Replaces an element
Provided Answer: a) Adds an element at the end
Correct Answer: b) Adds an element at a specific index
Status: Incorrect
Explanation: The `insert()` method adds an element at a specified index in a list.

28. Which method returns the number of times a value appears in a list?
a) len()
b) count()
c) size()
d) tally()
Provided Answer: b) count()
Correct Answer: b) count()
Status: Correct
Explanation: The `count()` method returns the number of occurrences of a value in a list.

29. What does the `copy()` method do in a set?
a) Clears the set
b) Returns a shallow copy of the set
c) Adds an element
d) Removes an element
Provided Answer: b) Returns a shallow copy of the set
Correct Answer: b) Returns a shallow copy of the set
Status: Correct
Explanation: The `copy()` method returns a shallow copy of the set, creating a new set with the same elements.

30. Which method checks if one set is a subset of another?
a) issubset()
b) contains()
c) ispart()
d) subset()
Provided Answer: Not provided

Correct Answer: a) issubset()
Status: Correct
Explanation: The `issubset()` method checks if all elements of one set are in another set.

31. What does the `symmetric_difference()` method return in a set?
a) Elements common to both sets
b) Elements in either set but not both
c) All elements in both sets
d) Elements in the first set only
Provided Answer: Not provided
Correct Answer: b) Elements in either set but not both
Status: Correct
Explanation: The `symmetric_difference()` method returns elements that are in either set but not in both.

32. Which method removes a specific element from a set if it exists?
a) remove()
b) discard()
c) pop()
d) delete()
Provided Answer: a) remove()
Correct Answer: b) discard()
Status: Incorrect
Explanation: The `discard()` method removes a specific element if it exists, without raising an error if it doesn't; `remove()` raises a `KeyError` if the element is absent.

33. What does the `isdisjoint()` method check in a set?
a) If two sets have common elements
b) If one set is a subset of another
c) If two sets have no common elements
d) If a set is empty
Provided Answer: Not provided
Correct Answer: c) If two sets have no common elements
Status: Correct

Explanation: The `isdisjoint()` method checks if two sets have no elements in common.

34. Which method adds multiple elements to a set?
a) add()
b) update()
c) extend()
d) append()
Provided Answer: d) append()
Correct Answer: b) update()
Status: Incorrect
Explanation: The `update()` method adds multiple elements from an iterable to a set; `append()` is for lists.

35. What does the `popitem()` method do in a dictionary?
a) Removes and returns an arbitrary key-value pair
b) Removes the first key-value pair
c) Adds a key-value pair
d) Clears the dictionary
Provided Answer: a) Removes and returns an arbitrary key-value pair
Status: Correct
Explanation: The `popitem()` method removes and returns an arbitrary key-value pair from a dictionary.

36. Which method returns all values in a dictionary?
a) keys()
b) items()
c) values()
d) get()
Provided Answer: b) items()
Correct Answer: c) values()
Status: Incorrect
Explanation: The `values()` method returns a view of all values in a dictionary; `items()` returns key-value pairs.

37. What does the `setdefault()` method do in a dictionary?

a) Sets a default key-value pair if the key doesn't exist
b) Removes a key-value pair
c) Updates all values
d) Clears the dictionary
Provided Answer: a) Sets a default key-value pair if the key doesn't exist
Correct Answer: a) Sets a default key-value pair if the key doesn't exist
Status: Correct
Explanation: The `setdefault()` method returns the value for a key, setting a default value if the key doesn't exist.

38. Which method creates a dictionary from keys with a default value?
a) fromkeys()
b) create()
c) make()
d) init()
Provided Answer: Not provided
Correct Answer: a) fromkeys()
Status: Correct
Explanation: The `fromkeys()` method creates a dictionary from a list of keys with a specified default value.

39. What is the result of `len((1, 2, 3))` on a tuple?
a) 1
b) 2
c) 3
d) 4
Provided Answer: b) 2
Correct Answer: c) 3
Status: Incorrect
Explanation: The `len()` function returns the number of elements in a tuple, which is 3 for `(1, 2, 3)`.

40. Which operation concatenates two tuples?
a) +
b) *
c) &

d) |
Provided Answer: a) +
Correct Answer: a) +
Status: Correct
Explanation: The `+` operator concatenates two tuples into a new tuple.

41. What does the `index()` method raise if the element is not found in a tuple?
a) KeyError
b) ValueError
c) IndexError
d) TypeError
Provided Answer: a) KeyError
Correct Answer: b) ValueError
Status: Incorrect
Explanation: The `index()` method raises a `ValueError` if the element is not found in a tuple.

42. What is the result of `(1, 2) * 2` on a tuple?
a) (1, 2, 1, 2)
b) (2, 4)
c) (1, 2)
d) Error
Provided Answer: a) (1, 2, 1, 2)
Correct Answer: a) (1, 2, 1, 2)
Status: Correct
Explanation: The `*` operator repeats a tuple the specified number of times, so `(1, 2) * 2` yields `(1, 2, 1, 2)`.

43. Which list method removes all elements?
a) clear()
b) delete()
c) empty()
d) remove()
Provided Answer: d) remove()
Correct Answer: a) clear()
Status: Incorrect

Explanation: The `clear()` method removes all elements from a list; `remove()` removes a specific value.

44. What does the `issuperset()` method check in a set?
a) If a set contains another set
b) If a set is empty
c) If two sets are equal
d) If a set has unique elements
Provided Answer: Not provided
Correct Answer: a) If a set contains another set
Status: Correct
Explanation: The `issuperset()` method checks if a set contains all elements of another set.

45. Which method reverses a list in place?
a) sort(reverse=True)
b) reverse()
c) flip()
d) invert()
Provided Answer: b) reverse()
Correct Answer: b) reverse()
Status: Correct
Explanation: The `reverse()` method reverses a list in place; `sort(reverse=True)` sorts in descending order.

46. What does the `difference_update()` method do in a set?
a) Adds elements from another set
b) Removes elements present in another set
c) Combines two sets
d) Clears the set
Provided Answer: Not provided
Correct Answer: b) Removes elements present in another set
Status: Correct
Explanation: The `difference_update()` method removes elements from a set that are present in another set.

47. Which dictionary method returns a shallow copy?
a) copy()
b) clone()
c) duplicate()
d) mirror()
Provided Answer: a) copy()
Correct Answer: a) copy()
Status: Correct
Explanation: The `copy()` method returns a shallow copy of a dictionary.

48. What happens when you use `del dict[key]` in a dictionary?
a) Removes the key-value pair
b) Clears the dictionary
c) Adds a key
d) Raises an error if the key doesn't exist
Provided Answer: Not provided
Correct Answer: d) Raises an error if the key doesn't exist
Status: Incorrect
Explanation: The `del dict[key]` statement removes a key-value pair but raises a `KeyError` if the key doesn't exist.

49. Which operation checks if an element exists in a tuple?
a) contains()
b) has()
c) in operator
d) find()
Provided Answer: d) find()
Correct Answer: c) in operator
Status: Incorrect
Explanation: The `in` operator checks if an element exists in a tuple; `find()` is not a tuple method.

50. What does the `intersection_update()` method do in a set?
a) Keeps only elements common to both sets
b) Adds elements from another set
c) Removes all elements

d) Creates a new set

Provided Answer: Not provided

Correct Answer: a) Keeps only elements common to both sets

Status: Correct

Explanation: The `intersection_update()` method modifies a set to keep only elements common to both sets.