1 Difference between list and tuple? list is mutable - a sequence of data and tuple are immutable - i.e., once created can't be changed.
2 What are an immutable and mutable object in Python? - Under Mutable we have provision to update or change the value of the object whereas in Immutable the state can't be changed.
3 How to access items in a dictionary python? - using “. items()" function
4 What is set and why use? - sets are unordered, and does not allow duplicate values, can be used when we don't want any duplicate values for the variable.
5 What is frozenset? - can be used to covert the variable to immutable or unchangeable.
6 Difference between append and extend? - append adds the variable to list at last index whereas extend also does the same but extend are iterable whereas append is not for iterable we have to use for loop for it to work.
7 Difference between indexing and Slicing? - Indexing is used to access the individual value whereas slicing can be used to get more than 1 value using range.
8 How to find the largest and lowest value in the list? - by passing the list variable to "max" and "min" function.

1. Is a list mutable?
Yes, lists are mutable

2. Does a list need to be homogeneous?
No, it can be homogeneous or heterogeneous

3. What is the difference between a list and a tuple?
list are mutable - a sequence of data and tuple are immutable - i.e. once created can't be changed.

4. How to find the number of elements in the list?
using the "len" function.

5. How to check whether the list is empty or not?
Can be achieved using the "len" function and check if the value is 0 or not.

6. How to find the first and last element of the list?
using list indexing i.e list[0] for 1st and list[-1] for last elements.

7. How to find the largest and lowest value in the list?
by passing the list variable to "max" and "min"function.

8. How to access elements of the list?
using indexes starting with "0,1,2,3,....." for left order and "-1,-2,-3,...." for right order.

9. Remove elements in a list before a specific index?
using pop and remove function

10. Remove elements in a list between 2 indices?
using "del" function

11. Return every 2nd element in a list between 2 indices?
"list slicing"i.e list[start:stop:step]

12. Get the first element from each nested list in a list?
reading the index 0 value inside a for loop.

13. How to modify elements of the list?
using index and new value can be passed to that.

14. How to concatenate two lists?
using "+", extend or using append inside a loop for inserting each value.

15. How to add two lists element-wise in python?
using append function with for loop.

16. Difference between del and clear?
"del" removes the index values whereas clear will remove all the elements.

17. Difference between remove and pop?
both are used to remove the values whereas the only difference is that pop returns the value removed.

18. Difference between append and extend?
append adds the variable to list at the last index whereas extend also does the same but extend is iterable whereas append is not for iterable we have to use for loop for it to work.

19. Difference between indexing and Slicing?
Indexing is used to access the individual value whereas slicing can be used to get more than 1 value using range.

20. Difference between sort and sorted?
sort updates the same list whereas sorted creates a new list with the sorted copy of the var.

21. Difference between reverse and reversed?
reverse function reverse the entire list and reversed function returns and iterator so as to access the sequence in reverse order

22. Difference between copy and deep copy?
Copy makes changes to the original var whereas deepcopy doesn't make any changes in the original var.

23. How to remove duplicate elements in the list?
convert the list to set to get unique values and then convert it to back list.

24. How to find an index of an element in the python list?
using an index function which will give the first occurance.

25. How to find the occurrences of an element in the python list?
using the count function.

26. How to insert an item at a given position?
using insert function, insert(index, element)

27. How to check if an item is in the list?
using "in" inside the conditional statement.

28. How to flatten a list in python?
using a "for" loop for the nested lists or using the concatenation concept.

29. How to convert python lists to other data structures like set, tuple, dictionary?
using the specific function like to convert to set, use set() and pass the var to be converted as an argument and can be followed the same for other DS.

30. How to apply a function to all items in the list?
Using a for loop it can be done. for each values returned inside the for loop can be passed to the respective function or using the map function in list map(func, *iterables).

31. How to filter the elements based on a function in a python list?
Filter function returns the values based on the condition passed.

32. How python lists are stored in memory?
using pointers concept in it.