

Here are the interview questions:

1.String :

1. ****Reverse a String****
2. ****Check if a String is a Palindrome****
3. ****Count the Number of Vowels in a String****
4. ****Find the Frequency of Characters in a String****
5. ****Check if Two Strings are Anagrams****
6. ****Remove Duplicate Characters from a String****
7. ****Check if a String Contains Only Digits****
8. ****Convert the First Letter of Each Word to Uppercase****

2.List:

1. ****Reverse a List Without Using Built-in Functions****
2. ****Find the Largest and Smallest Elements in a List****
3. ****Remove Duplicates from a List****
4. ****Check if a List is Empty****
5. ****Find the Second Largest Element in a List****
6. ****Count the Frequency of Each Element in a List****
7. ****Flatten a Nested List****
8. ****Merge Two Lists and Remove Duplicates****
9. ****Find the Intersection of Two Lists****
10. ****Rotate a List by `n` Positions****
11. ****Check if Two Lists are Identical****
12. ****Split a List into Even and Odd Numbers****
13. ****Find the Cumulative Sum of a List****
14. ****Sort a List Without Using the `sort()` Method****
15. ****Find All Pairs in a List That Sum Up to a Given Number****

3.Set:

1. ****Remove Duplicates from a List Using a Set****
2. ****Find the Union of Two Sets****
3. ****Find the Intersection of Two Sets****
4. ****Find the Difference Between Two Sets****
5. ****Check if a Set is a Subset of Another Set****
6. ****Check if Two Sets are Disjoint****
7. ****Remove an Element from a Set****
8. ****Add an Element to a Set****
9. ****Find the Symmetric Difference Between Two Sets****
10. ****Check if a Set is Empty****
11. ****Convert a List to a Set and Vice Versa****
12. ****Check if Two Sets are Equal****
13. ****Get All Unique Characters from a String Using a Set****
14. ****Count the Number of Unique Elements in a List****
15. ****Iterate Over a Set and Print Each Element****

4. **Tuple Questions:**

1. ****Access Elements in a Tuple****
2. ****Check if an Element Exists in a Tuple****
3. ****Count the Occurrences of an Element in a Tuple****
4. ****Find the Index of an Element in a Tuple****
5. ****Convert a List to a Tuple and Vice Versa****
6. ****Unpack a Tuple into Variables****
7. ****Concatenate Two Tuples****
8. ****Check if Two Tuples are Identical****
9. ****Sort a Tuple****

10. ****Find the Length of a Tuple****
11. ****Create a Tuple with Single Element (and Explain the Syntax)****
12. ****Reverse a Tuple****
13. ****Convert a Tuple of Tuples to a Single Tuple****
14. ****Iterate Over a Tuple and Print Each Element****
15. ****Create a Tuple Without Using Parentheses (Tuple Packing)****

5. **Dictionary Questions:**

1. ****Access the Value Associated with a Key****
2. ****Check if a Key Exists in a Dictionary****
3. ****Iterate Over a Dictionary and Print All Key-Value Pairs****
4. ****Merge Two Dictionaries****
5. ****Remove a Key from a Dictionary****
6. ****Find the Maximum and Minimum Values in a Dictionary****
7. ****Sort a Dictionary by Keys or Values****
8. ****Convert Two Lists (Keys and Values) into a Dictionary****
9. ****Get a List of All Keys and Values Separately****
10. ****Count the Frequency of Each Character in a String Using a Dictionary****
11. ****Update the Value of an Existing Key in a Dictionary****
12. ****Get the Default Value for a Non-Existent Key Without Raising an Error****
13. ****Reverse the Keys and Values in a Dictionary****
14. ****Create a Dictionary Using Dictionary Comprehension****
15. ****Remove All Entries from a Dictionary (Clear the Dictionary)****

`if-else` statements question:

1. ****Check if a Number is Positive, Negative, or Zero****
2. ****Determine if a Person is Eligible to Vote Based on Age****
3. ****Check if a Year is a Leap Year****
4. ****Find the Largest of Three Numbers****
5. ****Check if a Character is a Vowel or Consonant****
6. ****Determine if a Given Number is Even or Odd****
7. ****Check if a String is Empty or Not****
8. ****Determine the Grade Based on a Score (e.g., A, B, C, D, F)****
9. ****Check if Two Numbers are Equal, Greater, or Lesser****
10. ****Check if a Number is Divisible by Both 3 and 5****
11. ****Implement a Simple Calculator Using `if-elif-else` Statements****
12. ****Check if a Number is Within a Certain Range (e.g., between 1 and 100)****
13. ****Determine if a String Starts with a Vowel****
14. ****Check if a Given Year is a Century Year****
15. ****Determine if a Person is a Child, Teen, or Adult Based on Age****

****For Loop Questions:****

1. ****Print All Elements in a List Using a For Loop****
2. ****Calculate the Sum of All Numbers in a List****
3. ****Find the Factorial of a Given Number****
4. ****Print the Multiplication Table of a Given Number****
5. ****Print the Fibonacci Sequence Up to `n` Terms****
6. ****Count the Number of Even and Odd Numbers in a List****
7. ****Reverse a String Using a For Loop****
8. ****Find the Maximum and Minimum Values in a List****

9. ****Print All Prime Numbers Within a Given Range****
10. ****Iterate Over a Dictionary and Print Each Key-Value Pair****
11. ****Find the Length of Each Word in a List of Strings****
12. ****Create a List of Squares for Numbers From 1 to 10****
13. ****Filter Out Only Positive Numbers From a List****
14. ****Print Each Character of a String Separately****
15. ****Check if an Element Exists in a List Without Using the `in` Keyword****

****While Loop Questions:****

1. ****Print Numbers From 1 to 10 Using a While Loop****
2. ****Calculate the Sum of Digits of a Given Number****
3. ****Reverse a Number Using a While Loop****
4. ****Print a Countdown From 10 to 1****
5. ****Find the Greatest Common Divisor (GCD) of Two Numbers****
6. ****Keep Taking Input From the User Until They Enter 'exit'****
7. ****Check if a Number is a Palindrome****
8. ****Generate the Fibonacci Sequence Until a Specified Number****
9. ****Calculate the Power of a Number Without Using the `**` Operator****
10. ****Print All Even Numbers Between 1 and 100****
11. ****Sum of Natural Numbers Until a Given Number****
12. ****Implement a Simple Menu-Driven Program Using While Loop****
13. ****Simulate a Basic Password Check That Limits to 3 Attempts****
14. ****Keep Multiplying a Number by 2 Until It Becomes Greater Than 1000****
15. ****Print the Digits of a Number in Reverse Order****

