**1) Given the definition**

**Values = [0, 0, 0, 0, 0, 0, 0]**

**Write statements to put the integer 10 into the elements of list values with the lowest and the highest valid index.**

values = [0, 0, 0, 0, 0, 0, 0]  
# Put the integer 10 into the element with the lowest valid index (index 0)  
values[0]=10  
# Put the integer 10 into the element with the highest valid index (index 6)  
values[-1]=10 # or another way values[6]=10  
print(values)

**2) Reverse the following list without using the reverse() function:**

**[6, 3, 8, 1, 7]**

lst=[6, 3, 8, 1, 7]  
#Original list  
print("Original list :",lst)  
#Reversed list  
print("Reversed list:",lst[::-1])

**3) If you have the following list as an input:**

**[‘red’, ‘yellow’, ‘pink’, ‘black’]**

**And the following list is the output of it:**

**[‘red’, ‘purple’, ‘yellow’, ’Black’, ‘green’]**

**Find how we got the output.**

lis=["red", "yellow", "‘pink’", "‘black’"]  
lis.insert(1,"purple")  
lis[4]="Black"  
lis.pop(3)  
lis.append("green")  
print(lis)

**4) fruits = [‘orange’, ‘apple’, ‘pear’, ‘banana’, ‘kiwi’, ‘apple’, ‘banana’]**

**fruits.count(“apple”) output->> 2**

**fruits.count(“strawberry”) output->> 0, because we don’t have strawberry in list**

**fruits.index(“banana”) output->> 3**

**fruits.index(“banana”, 4) output->> 6**

**fruits.reverse() output->>** **[‘banana’, ‘apple’,’ kiwi’, ‘banana’, ‘pear’, ‘apple’, ‘orange’]**

**fruits.append(“grape”)output ->>** **[‘banana’, ‘apple’, ‘kiwi’, ‘banana’, ‘pear’,’apple’, ‘orange’, ‘grape’]**

**fruits.sort()**

**output->>[‘apple’,’apple’,’banana’,’banana’,’grape’,’kiwi’,’orange’,’pear’]**

**fruits.pop()**

**output->>[‘apple’,’apple’,’banana’,’banana’,’grape’,’kiwi’,’orange’]**

**5) input: [23, 54, 76, 12, 90]**

**output: 23 | 54 | 76 | 12 | 90**

mylist = [23, 54, 76, 12, 90]  
replace\_coma = str(mylist).replace(", ", " | ")  
replace\_coma=replace\_coma[:-1]  
replace\_coma=replace\_coma[1:]  
print(replace\_coma)

**6) write a loop that counts how many elements in a list is equal to zero.**

my\_list = [1, 0, 5, 0, 3, 0, 7]  
# Count the number of zeros in the list  
zero\_count = 0  
for element in my\_list:  
 if element == 0:  
 zero\_count += 1  
print("Number of zeros in the list:", zero\_count)

**7) Write the output of the following:**

**d = “a\*hj”**

**list(d)**

d = "a\*hj"

print(list(d))

output->> ['a', '\*', 'h', 'j']

**8) What is the output of the following:**

**b= [‘p’, ‘r’, ‘a’, ‘c’, ‘t’, ‘i’, ‘c’, ‘e’]**

**for i in b:**

**print(i, end=”?”)**

output->> p?r?a?c?t?i?c?e?

**9) If you have the following:**

**b = “Hello World”**

**a = list(b)**

**print(a) output->>** **a = ['H', 'e', 'l', 'l', 'o', ' ', 'W', 'o', 'r', 'l', 'd']**

**print(len(a)) output->> 11**

**print(a[1:11]) output->> ['e', 'l', 'l', 'o', ' ', 'W', 'o', 'r', 'l', 'd']**

**print(a[-2:-5:-1]) output->> ['l', 'r', 'o']**

**print(a[::2]) output->> ['H', 'l', 'o', 'W', 'r', 'd']**

**print(a[:4]) output->>** **['H', 'e', 'l', 'l']**

**print(a[4:]) output->> ['o', ' ', 'W', 'o', 'r', 'l', 'd']**

**10) Write a Python program to find the list of words that are longer than n from a given list of words.**

**Hint: take n from user**

# Input list of words  
words = input("Enter a list of words separated by spaces: ").split()  
  
# Get 'n' from the user  
n = int(input("Enter the value of 'n': "))  
  
# Find longer words and print the result  
longer\_words = [word for word in words if len(word) > n]  
print("Words longer than", n, "characters:", longer\_words)