



List Manipulation, Tuples

Q1. Write a program to input 10 integers in a list and print the sum of even numbers only.

Q2. Given the list:

```
nums = [2, 4, 6, 8, 10, 12, 14]
```

Write slicing expressions to obtain:

a) [6, 8, 10]

b) [2, 4, 6]

c) [10, 12, 14]

d) [14, 12, 10]

Q3. Write a program to reverse a list without using the reverse() function.

Q4. What will be the output?

```
x = [10, 20, 30, 40]
```

```
print(x[1:3])
```

```
print(x[-3:])
```

```
print(x[::-1])
```

Q5. Write a program that creates a tuple of 5 strings entered by the user, and then displays the longest string.

Q6. Given:

```
colors = ("red", "green", "blue", "yellow")
```

Write Python statements to:

a) Display the length of the tuple

b) Access "green" using negative indexing

c) Slice and display ("green", "blue")

Q7. Write a program to count how many times a given element appears in a list.

Q8. What will be the output?

```
L = [1, 2, 3]
```

```
M = [4, 5]
```

```
print(L + M)
```

```
print(L * 3)
```

Q9. Write a program to input a list of numbers and create a new list with squares of these numbers.

Q10. Given:

```
marks = [85, 90, 75, 60, 95]
```

Write Python expressions using list functions to find:

a) Maximum marks

b) Minimum marks

c) Sorted list in descending order

Q11. Write a program to check whether a given element exists in a tuple or not.

Q12. Predict the output:

```
T = (1, 2, 3, 4, 5)
```

```
print(T[1:4])
```

```
print(T[-1])
```

```
print(len(T))
```

Q13. Write a program to swap the first and last elements of a list.

Q14. Write a program that reads a tuple of integers and prints the sum of all odd numbers in it.

Q15. Differentiate between:

a) append() and extend() with an example.

b) sort() and sorted() with an example.