Coding Part (1 to 10)

1. Create a Python program that counts how many times a specific letter occurs in a string.

2. Write a program to calculate the sum of all even numbers from a list using a function.

3. Write a function that accepts a list of integers and returns a tuple containing the maximum and minimum values in the list.

4. Write a function to check if a given string is a palindrome

5. Create a Python function that returns the common elements between two lists as a tuple.

6. Write a Python program that checks whether a given string is a valid email address by checking for the presence of ‘@’.

7. Implement a function that takes a list and removes all elements that are below a given threshold.

8. Implement a Python function that accepts a string and a character, and replaces every occurrence of the character in the string with a ‘*’ .

9. Write a code to draw the pattern given below

```
1
2 1
3 2 1
4 3 2 1
5 4 3 2 1
```

10. Write a code to draw the pattern given below

```
*****
****
***
**
*
```

or

```
*
**
***
****
*****
```

Debugging Part (11 to 15)

11.

```
my_list = [1, 2, 3, 4]
total = sum(my_list)
average = total / len(my_list)
print("Average: " + average)
```

12.

```
def get_largest(numbers):
    max_value = None
    for n in numbers:
        if n > max_value:
            max_value = n
```

```
    return max_value

result = get_largest([1, 2, 3, 4, 5])
print("Largest number:", result)
```

13.

```
L = eval(input("Enter the elements : "))
n = len(L)
for j in range(n):
    for i in range(n-j):
        if L[i]>L[i+1]:
            L[i],L[i+1] = L[i+1],L[i]
print("Sorted List",L)
```

14.

```
num = 1634

order = len(str(num))

sum = 0

temp = num
while temp > 0:
   digit = temp % 10
   sum += digit ** order
   temp /= 10

if num == sum:
   print(num,"is an Armstrong number")
else:
   print(num,"is not an Armstrong number")
```

15.

```
def calculate_average(numbers):
    total = None
    for n in numbers:
        total += n
    return total / len(numbers)

result = calculate_average([5, 10, 15])
print("Average:", result)
```