Q1.

```
sentence =  "The quick brown fox jumps over the lazy dog"

sentence = sentence.lower()

letters = set(ch for ch in sentence if ch.isalpha())

if len(letters) == 26:
   print("The given sentence is a panagram")
else:
   print("The given sentence is not a panagram")
```

Output:

```
"D:\CDAC\Python programs\venv\Scripts\python.exe" "D:\CDAC\Python programs\demo.py"
The given sentence is a panagram

Process finished with exit code 0
```

Q2.

```
n = int(input("Enter a number: "))
nums = []
for i in str(n):
   nums.append(int(i))

sum = 0
for j in range(len(nums)):
   sum = sum + nums[j]
print("The sum of digits in",n,"is:",sum)
```

Output:

```
"D:\CDAC\Python programs\venv\Scripts\python.exe" "D:\CDAC\Python programs\demo.py"
Enter a number: 12345
The sum of digits in 12345 is: 15

Process finished with exit code 0
```

Q3.

```
mylist = []
for i in range(3):
    n = int(input("Enter a number:"))
    mylist.append(n)
sorted_list = sorted(mylist)
print("After sorting: ",*sorted_list)
```

Output:

```
"D:\CDAC\Python programs\venv\Scripts\python.exe" "D:\CDAC\Python programs\demo.py"
Enter a number:22
Enter a number:1
Enter a number:3
After sorting:  1 3 22

Process finished with exit code 0
```

Q4.

```
n = int(input("Enter a number: "))
mylist = []
for i in range(1,n):
    if n % i == 0:
        mylist.append(i)

print(mylist)
```

```
sum = 0
for j in range(len(mylist)):
    sum = sum + mylist[j]

print(sum)
if sum == n:
    print(n, "is a perfect number")
else:
    print(n, "is not a perfect number")
```

Output:

```
"D:\CDAC\Python programs\venv\Scripts\python.exe" "D:\CDAC\Python programs\demo.py"
Enter a number: 28
[1, 2, 4, 7, 14]
28
28 is a perfect number
```