1.

```
#Assignment 3 - 1st question
def longest_word(list):
    word_len=[]
    for i in list:
        word_len.append([len(i),i])
        word_len.sort(reverse=True)
    return word_len[0][0],(word_len[0][1])
word_list=['PYTHON','COBOL','JAVA','RUBY','SAS']
result=longest_word(word_list)
print('Length of the longest word: ',result[0])
print('Longest word: ',result[1])
```

2.

```
#Assignment 3 - 2nd Question
def remove_nth_index_char(str,n):
    String_new=''
    for char in range(0,len(str)):
        if char != n:
            String_new+=str[char]
    return String_new

def remove_nth_index_char_alt(str,n):
    return String[0:n]+String[n+1:len(str)]

n=3
String='PYTHON'
print('String after 3rd character: ',remove_nth_index_char(String,n))
print('String after 3rd character:
',remove_nth_index_char_alt(String,n))
```

3.

```
def last_part_of_string_after_a_char(str,ch):
    return str.split(ch)[-1]
string = "Python is an interpreted language"
char=' '
print(last_part_of_string_after_a_char(string,char))
```

4.

```
def lexicographi_str(str1):
    return sorted(str1,key=lambda s: s.casefold())

str1='PythoN14281'
print(lexicographi_str(str1))
```

5.

```
def remove_space_from_string(str):
    return str.replace(' ','')
string = "Python is an interpreted language"
print(remove_space_from_string(string))
```