

ECC102 – PROGRAMMING AND PROBLEM-SOLVING  
MIDTERM EXAM WORKSHEET  
EXAMPLE QUESTIONS 2

1. Consider the following Python program.

```
string = "Far over the misty mountains cold"

def ud_function(args):
    words = []
    for i in range(len(args)):
        if args[i] == " ":
            words.append(i)
    return words

j = 0
k = 0
final = []
rtrnd = ud_function(string)
while True:
    sep_wr = string[j:rtrnd[k]]
    k = k + 1
    final.append(sep_wr)
    if k == len(rtrnd):
        sep_wr = string[rtrnd[k-1]:len(string)]
        final.append(sep_wr)
        break
    j = rtrnd[k-1]

print(final)
```

- a. Trace the program and determine the output.
  - b. Indicate with which built-in string function the above program gives the same output.
2. Write a function **duplicates(list0)**, which returns **True** if **list0** contains at least two adjacent elements with the same value.
3. Write a Python program to get customer meal orders for a small restaurant. The requirements for the program are:

- The menu will consist of "soup", "chicken", and "meat" and **should be stored in a tuple**.
- The program will display the menu and accept the user orders as integers (i.e., 1 for soup, 2 for chicken, and 3 for meat).
- The program will **terminate if the user enters 0** (zero).
- If any value except 0, 1, 2, and 3 is entered, the program will message "**Wrong order**", and display the menu again to get the new order.
- The customer orders should be stored in **a list**.
- When the customer enters 0, the **program will summarize the orders** (i.e., You ordered 1 soup and 2 meat menu).
- The program should include **at least one user-defined function**.

4. The following program aims to read a student's name (i.e., John) and surname (i.e., Smith) into two variables and to display "The student is John Smith". However, the freshman student made a mistake that produced errors when you ran the program. Determine and correct the mistakes without adding or removing any statement.

```
name = int(input("Enter your name:>"))
surname = int(input("Enter your name:>"))
combined = name + surname
print("The student is combined")
```

5. Write a Python program to find the Least common multiple of two integer values. You are free to read numbers from the keyboard or define numbers in a program.