## ONLINE ON CPP (A1)

- Define a class named "Box".
- Attributes:
  - length (1)
  - width (w)
  - height (h)
- Member functions:
  - Constructors(2)
    - o Without any parameters:
      - Initializes the attributes to zero
    - o With 3 parameters that initializes the 3 attributes
  - Destructor
    - o Just print "In destructor"
  - A single setter to set all the dimensions
  - Get the volume of the box
  - Get the surface area of the box
  - A comparator function that compares two boxes:
    - o The box with greater volume is larger
    - o If the volume is equal, the box with greater surface area is larger

You should return -1, 0, or 1 respectively if the calling box is smaller, equal, or larger than the box sent as parameter

Now write a main function to test and show that all functionalities are working.

## **Marks Distribution:**

Define and Design the box - 2

Constructors - 2

Destructor – 1

Setter - 2

Calculate Volume – 2.5

Calculate Surface Area – 2.5

Comparator - 3

Main - 5