

## Project

**Date of submission:** On or before 30/12/20

### Marks:

- (1) Project: 40
- (2) Viva-Voce: 40

### Problem Statement:

Take any real life example and design a system (write down the code). The overall class structure should be logical. The names of variables, methods and classes should be lexically rational and should be accompanied with their description in the comments alongside. Your overall code will be something similar to the codes that you wrote in most of your lab hours. It goes without saying that the code should be well indented and should compile and run error free. However, do remember that a non-running code is better than a plagiarized one, and hence the latter one will be penalised heavily if it exceeds 10-15% (may result in rescission of this component). In addition, Your code should include atleast the following.

- (I) Classes: (minimum 3)
- (II) Overloaded methods (minimum 2)
- (III) Overloaded constructors (minimum 2)
- (IV) Vararg overloading (minimum 2)
- (V) Nested classes (static or nonstatic, atleast 1, this is a part of I above)
- (VI) Hierarchical Inheritance (atleast 1)
- (VII) Multiple Inheritance (atleast 1)
- (VIII) Abstract class (atleast 1, this is in addition to I above)
- (IX) Wrappers
- (X) Packages
- (XI) Exception handling (atleast two cases)

These are the minimum requirements. You are free to use more number of each of them.

Draw the UML diagram for the above system