**STRATHMORE UNIVERSITY**

**BACHELOR OF BUSINESS INFORMATION TECHNOLOGY**

**Date: 13th August 2021**

**BBT 2202: ADVANCED OBJECT-ORIENTED PROGRAMMING**

Background: In the previous classes, we discussed classes, objects, inheritance and interfaces. Today you will focus further on object-oriented programming concepts by all those concepts in a single project.

**Required:** Create a new Java project and:

1. Given three classes Person(name, dob, gender), Student(studentId, admissionDate) and Staff(staffId,jobTitle). Both Student and Staff inherit from Person. Write appropriate Java code for the three classes.
2. Write code to define another class (called Main) that defines objects of the Student and Staff classes. It should also call methods/functions that are contained in those classes.
3. Repeat the same (No. 1 & 2) for Stationery(name, cost, weight) { Paper(color, material, shape), Pen(inkcolor, type e.g. pencil, ballpoint) }
4. In the class called Stationery. Do the following:
   1. Write a method that asks the user to type two numbers and displays the sum.
   2. Write a function that takes two numbers and returns the sum.
   3. Write a function that takes a salutation, first name and last name and returns them in the format:

E.g., Mrs Grace Ali

1. Define an interface called Combine. Define methods in the interface and implement them in the class Student as well as in the class Staff. Proceed to test them in the main method contained in the class defined in question no. 2.
2. Implement (write code for) overriding in the class **Staff**. Use any method/function name (s).