

## Bangladesh University of Business & Technology Department of Computer Science and Engineering

## Object Oriented Programming (CSE 111)

Spring 2024, Assignment

Intake 52 Marks: 20

- 1. Write down the differences between **function overloading** and **operator overloading** with code examples (5)
- 2. Design an abstract class named **Phone**. Phone will have only one function **callRecieve()**. Create derived class Landline and Mobile. Landline will define callRecieve() so that it will output "Pick Receiver" and similarly Mobile will output "Press Receive Button" from **callRecieve()**. In the main() function, use Phone class in a way that shows the way of receiving the call.
- 3. Create objects called **r1,r2,r3,r4** of the class **Rectangle**, which has two private integer member variables **height** and **width**. Implement operator overloading for performing operations like **r1=(r2\*r3)+r4** and **r1=(25+r2)\*r3** (5)
- 4. Create three classes: **Person**, **Address**, **and Contact**. Person class should have private data members for **name** and **age**. Address class should have data members for **street**, **city**, and **zip code**. Contact class should inherit from both Person and Address classes. It should have an additional data member for phone number and a member function display(). Now create an object of Contact class to display the details of a person.

  (5)