**Department of Computer Science**

**Final Term Exam Spring 2020**

Subject: **Object Oriented Programming**

**BS (CS,SE)** Instructor: M.Ayub Khan

There are total **5** questions in this paper.Max Marks: 50

***Note:***

***At the top of the answer sheet there must be the ID, Name and semester of the concerned Student.***

***Students must have to provide the output of their respective programs. Students have same answers or programs will be considered fail. Programs in Java or codes should be explained clearly.***

***As this paper is online so incase of any ambiguity my Whatsapp no. is 034499121116.***

**Each question carry equal marks.**

**Please answer briefly.**

Q1. a. Why access modifiers are used in java, explain in detail Private and Default

access modifiers?

b. Write a specific program of the above mentioned access modifiers in java.

Q2. a. Explain in detail Public and Protected access modifiers?

b. Write a specific program of the above mentioned access modifiers in java.

Q3. a. What is inheritance and why it is used, discuss in detail ?

b. Write a program using Inheritance class on Animal in java.

Q4. a. What is polymorphism and why it is used, discuss in detail ?

b. Write a program using polymorphism in a class on Employee in java.

Q5. a. Why abstraction is used in OOP, discuss in detail ?

b. Write a program on abstraction in java.