ACD\_BDD2.3\_Session\_15\_Assignment\_1

1.Write a simple program to show inheritance in scala.

**abstract** **class** inheritance(name: *String*) {

**def** statement = name + " is a " + typeOfAnimal

**def** typeOfAnimal: *String*

}

**class** Cat(name:*String*) **extends** inheritance(name){

**override** **def** typeOfAnimal = "Cat"

}

**class** Tiger(name:*String*) **extends** inheritance(name){

**override** **def** typeOfAnimal = "Tiger"

}

scala> var h = new Cat("CJ")

h: Cat = Cat@2d272b0d

scala> var c = new Tiger("Bessie")

c: Tiger = Tiger@49122b8f

scala> println(h.statement);println(c.statement)

CJ is a Cat

Bessie is a Tiger

2.Write a simple program to show multiple inheritance in scala.

**class** Vehicle (**val** enginePower : Int,**val** wheelcount: Int,**val** chassisNumber : *String*){

**def** **this**(wheelcount : Int,chassisNumber : *String*) = **this**(105,wheelcount,chassisNumber)

**def** **this**(chassisNumber : *String*) = **this**(105,4,chassisNumber)

}

**class** Car(enginePower : Int, wheelcount: Int,chassisNumber : *String*,**val** wiperType : *String*)

**extends** Vehicle (enginePower,wheelcount,chassisNumber) {

**override** **def** toString = s"$enginePower: $wheelcount $chassisNumber $wiperType"

}

**class** Motorbike(wheelcount: Int,chassisNumber : *String*,**val** handleType : *String*)

**extends** Vehicle (wheelcount,chassisNumber) {

**override** **def** toString = s"$enginePower: $wheelcount $chassisNumber $handleType"

}

scala>**def** show(vehicle:Vehicle) =s"engine power: ${vehicle.enginePower},count of wheel: ${vehicle.wheelcount},chassis number : ${vehicle.chassisNumber}"

scala> show(new Vehicle(1000,4,"qwerrku1234"))

res2: String = engine power: 1000,count of wheel: 4,chassis number : qwerrku1234

scala> show(new Motorbike(2,"ASGHJ786","high bent"))

res4: String = engine power: 105,count of wheel: 2,chassis number : ASGHJ786