**Day 2 Assignments**

Q1. Attributes of television are: Color, width, Design, channel, Volume

Private class Television{

void changeChannel(){

//Implementation

}

void adjustVolume(){

//Implementation

}

void otherFeatues(){

//Implementation

}

}

The above attributes are the necessary things that are exposed to the users to use it and the unwanted features like tv machine, connections are hidden(not exposed to users).Here channels, volume keys ,screen , cable switches are exposed part of Television which acts like abstraction.

Q2. Attributes of Hospital are: patients, doctors, pharmacy, managers, sub-ordinators.

class Hospital{

private class {

patient;

}

public createPatient\_id(){}

public addPatientdetials(){}

public deletePatient(){}

.

.

}

The above mentioned are the attributes for hospital. Initially when a person visits a hospital their details are given to the receptionist. Receptionist will share the details to the doctor, the information is only known to the doctor no other person will get to know about it. The doctor examines the person and gives some medical treatment, to diagnose the problem some medical test can be done but the reports or about the patient is not known to others. Which satisfies the condition of encapsulation i.e., Combination of data hiding and abstraction.

Q3. Attributes of traffic signals are: red light, green light, orange light .

class Trafficsignal{

public void lightOn(){}

public void lightOff(){}

}

class Red Light extends Trafficsignal{

public void stop(){}

}

**Polymorphism:** The word polymorphism means having many forms. In simple words, we can define polymorphism as the ability of a message to be displayed in more than one form.

For the Entity **Traffic Signal,** there will be three indicators those three come into play for three different situations. “Red” signal indicates that the vehicle should stop. “Yellow” signal indicates the vehicle to slow down and be ready. “Green” signal indicates to Go. Based on the colour indications the traffic signal have many forms.

Q4.

class Broadband connection{

data;

bandwidth1(){}

bandwidth 2(){}

}

class Derived extends Broadband Connection{

bandwidth 3(){}

}

**Inheritance:** It is the mechanism in which one class is allowed to inherit the properties and behaviours of child class.

In Broad Band Connection, imagine designing a class to create broad band connections like airtel, Vodafone, jio etc. All broad band objects have the same properties and behaviors. They can provide good internet, router, modem etc. Instead of creating these classes individually a general broad band class with all the attributes and behaviors of a broad band can be used to model all broad band objects, the other classes then inherit or are created on the superclass attribute and methods.

Q5.

Static attributes of mobile phone are: Battery, RAM, Display inch, camera.

Dynamic attributes of mobile phone are: wallpaper, ringtone, alaram, applications that are necessary.