**ASSIGNMENT-2**

**1.**Given an entity named **Television,** identify its attributes and explain how will you do Abstraction?

Abstraction: abstraction displays only the relevant attributes of objects and hides the unnecessary details.

**Attributes** of television are screen, audio, switch on and off, channels

In television the cables and internal circuitry will be hide, we can see only the Tv ON and OFF functionality and we can’t see the internal operation of various components.

Audio we can listen and speakers are visible, we can control the volume and the process of controlling will be not visible. Screen is visible but the internal process to play the video will be hide.

**2**.Given an entity named **Hospital,** explain Encapsulation with respect to it.

Encapsulation is defined as wrapping of data and methods that work on that data within one unit.

In hospital there are many divisions like doctor, patients, management.

All the data of the data of the doctors and the patients are collected and stored in the private and public objects within a class. The patients data were kept in the private class so no one access the data. By using encapsulation the data of the management, patients, doctors are kept in single class

**3**.Given an entity named **Traffic Signal,** explain Polymorphism with respect to it.

Polymorphism provides multiple forms to a single function

Traffic signal is considered as one object, it is used to control the traffic in many ways . traffic signal consists of three colour lights like red colour is used to indicate the vehicles to stop, and green colour is used to indicate the vehicles to go by these mechanism the traffic signals can be controlled in different ways

**4**.Given an entity named **Broad Band Connection,** explain inheritance with respect to it.

Inheritance is defined as acquiring the properties from one class to another

Broad band connection has many objects which has the same properties. some broad band connections like airtel, jio, fiber, etc.., these all broad bands has the same properties and behaviour like provide good internet, modem, router etc. instead of creating these classes individually ,a general broad band class is created with all the attributes and behaviour of a broadband is used to the child class.

**5**.Given an entity named **Mobile Phone,** identify its static & dynamic attributes

Static attributes are which cannot be changed.

* Mobile size and weight
* Memory
* Software
* Operating system

Dynamic attributes are which can be vary as per the requirement.

* Display settings
* SIM
* Apps