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

**TELEVISION:**

Attributes:

Picture Quality

Size

Features

Accessibility

Etc.,

Abstraction:

We can see outlook of television performance but how it going to work, what are the hardware and software used functionality all comes under Abstraction.

The internal program , hidden to the user but specifies the performance and usability in a easy configuration.

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

**HOSPITAL:**

Attributes:

Patients

Doctors

Medical health equipment

Pharamacy

Etc.,

Encapsulation:

In Hospitals, Each Patient contains individual data and their operations is carried out based on patient reports. That information is secured.

The patient data and their symptoms of operations wrap together and maintain private.

Given an entity named **TrafficSignal,** explain Polymorphism with respect to it.

**TrafficSignal:**

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.

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

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.

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

Static Attributes:

Camera

Battery

USB cables

Mobile phone body

Sim tray

Mobile mother board

Dynamic Attributes:

User Interface

Settings