### **EXTEMPORE ON AUTOMOBILE:**

The integration of information technology (IT) in the automobile industry has revolutionized the way vehicles are designed, manufactured, and operated. This convergence has led to significant advancements in safety, efficiency, and user experience. From smart vehicles to connected infrastructure, IT has become a driving force behind innovation in the automotive sector.

# EXTEMPORE OF IT IN METRO RAIL::

1. Ease of Transportation Metro systems offer a reliable and quick way to travel, especially in congested urban areas where road traffic can be overwhelming.

It reduces commute times, helping people move around the city more efficiently.

#### 2. Environmental Benefits:

Highlight how metro systems are a greener alternative to cars and buses, as they significantly reduce carbon emissions.

Metro trains run on electricity, contributing to lower air pollution and reducing a city's carbon footprint.

## **EXTEMPORE ON AVIONICS::**

## 1. Importance in Modern Aviation:

Avionics are crucial for the safe and efficient operation of aircraft. From navigation and communication to managing flight controls, avionics systems guide every aspect of an aircraft's operation.

Mention how advances in avionics have revolutionized aviation, allowing for more automated flights, improved safety, and better fuel efficiency.

Navigation Systems: These allow aircraft to determine their position and safely travel from point A to point B, using GPS and radar systems.

Communication Systems: Aircraft use radio communications and satellite systems to interact with air traffic control and other aircraft.

Flight Control Systems: These help pilots manage the aircraft, ensuring smooth operation and automatic adjustments based on real-time data.

Monitoring Systems: Aircraft use sensors and display systems to monitor engines, fuel levels, weather conditions.