

Extempore on Automobiles:

Cars have distinctly altered the way people live since its conception a century ago. Once viewed as a luxury item for the few, a car has played a very important role in modern society; consequently, affecting everything from city planning to individual freedom. The early beginnings of Karl Benz and Henry Ford of the 19th century brought this automobile into being. That was the introduction of the Ford assembly line in 1913. Cars were no longer unaffordable and out of reach to the masses but were rather in easier reach for any and everybody's pocket. Ford's Model T made an example this revolution and paved the way for a new era of mobility.

The proliferation of automobiles would mean great changes in urban development as well as in everyday life. The expansion of cities meant also that suburbs would grow, and the road network between them was vast. Improved connectivity-the automobile-allowed people to go farther from their places for work or recreation.

Extempore on Avionics:

Avionics: The electronic systems used in aircraft have become indispensable to the aviation industry. While it is not easy to notice, people outside this field, avionics cover a wide range of technologies. They include navigation, communication, and monitoring systems for better safety and efficiency as well as performance of aircrafts. Evolutions in avionics have dramatically transformed aviation from simple mechanical instruments to high-level digital interfaces that give pilots real-time information.

Initially, cockpit instruments in aviation were mechanical. They relied on analog systems to navigate and communicate. The latest advancements in technology, however have incorporated electronic systems, ensuring functionality and delight from a user's perspective. Modern avionics operates on GPS technology to achieve location navigation in real time and by optimizing routes. Radar systems that are currently effective can now efficiently detect any weather pattern to inform pilots about situations at every stage of the flight. With the introduction of flight management systems, flight operations have become streamlined and efficient-the optimized flight path consumes less fuel, which in turn saves airline companies considerably.

Extempore on Metro Rail:

Metro rail systems have also become one of the major part of transportation in most cities around the world, providing much-needed relief from congestion, pollution, and growing public transit needs. The demand for speed, reliability, and frequency has never been greater as urban populations continue to swell. Not only did it offer a quicker and more dependable alternative to road transport, but it also saved traveling time and overall commuting experience for millions of passengers in cities all over the world.

The metro existed first in the early twentieth century. The two main metro- developing countries were London and Paris. Since then, metros existed globally as a very important component of urban infrastructure. The most significant benefit of a metro rail is the reduction of traffic congestion. Since metro can transport hundreds of people fast and in large numbers, that increases the reduction of riding private vehicles, thus minimizing the gridlock that always characterizes cities. It also reduces the use of personal vehicles of citizens which reduces the pollution.