

GSA

Q: What are the different layers of the atmosphere? On what basis these layers are classified? In which layer 'Auroras' are formed and where do satellite orbit?

Answer:-

Atmosphere :-

Atmosphere is a gaseous layer surrounded by the earth. In other words we can say a thin layer of gases surrounds the earth. There are 2 types of gases present in our atmosphere. One is constant gases and the other is variable gases. Constant gases include Nitrogen and Oxygen & their concentration is not change in atmosphere in which nitrogen is 78% and Oxygen is 21%. Variable gases are those gases whose concentration changes & mainly include noble gases such as Neon, argon, krypton etc they surround the earth 0.1%.

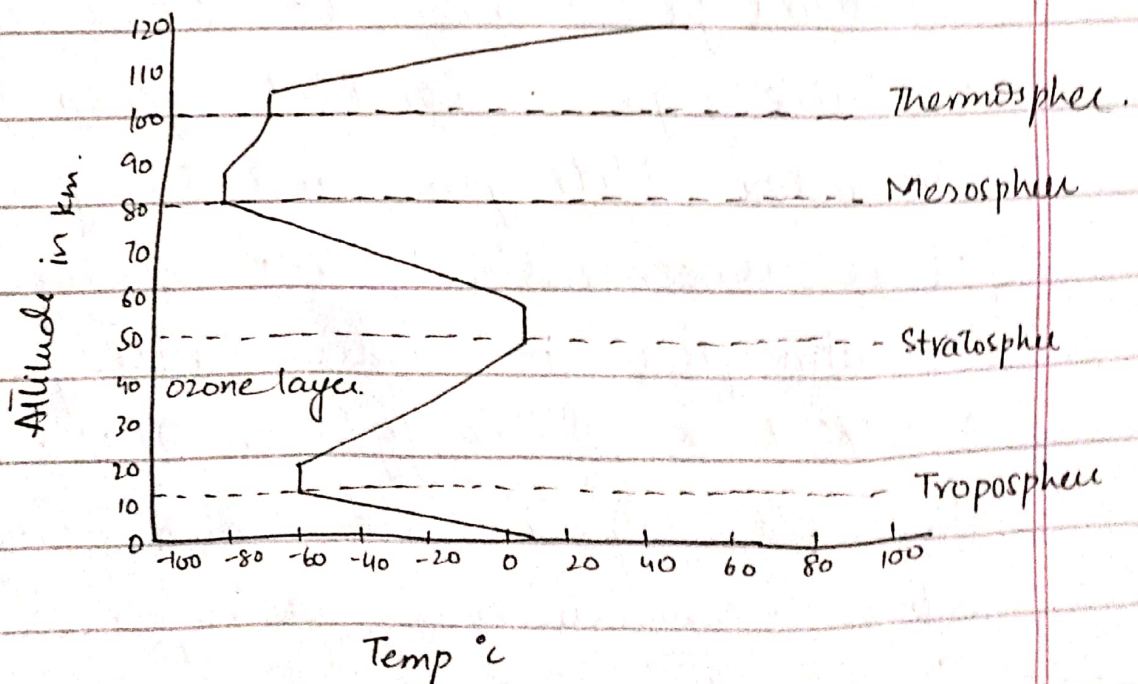
Carbon dioxide (CO_2) is also considered as variable with the concentration of (0.03%) in atmosphere.

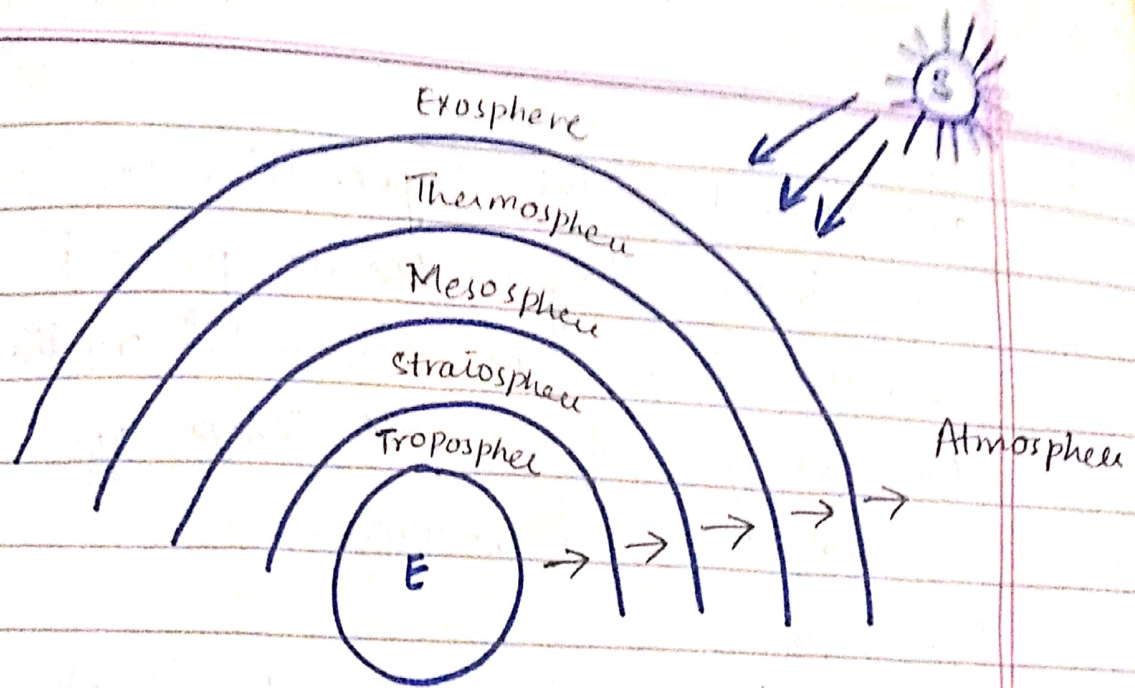
As the altitude increase the density of atmosphere decreases. So, the temperature changes.

As we move upward the temperature sometime falls and sometime rise

So scientist study the inconsistent pattern and classified the atmosphere into five layer based upon temperature this

is known as zigzag temperature pattern.





There are 5 different layers of Atmosphere are as follows:

1- Troposphere :-

This layer is the first layer of the atmosphere & it is upto 12km. This is a cold layer because to low temperature. Most of gasses are present in this layer it is the closest layer to the earth. Aeroplane flies in this layer. Cloud formation is also take place in this layer.

2- Stratosphere :-

This is the second layer of the atmosphere and starts from 12km to 50 km above the earth's surface. Ozone layer is

also present in this layer. This is the hottest layer. Ozone protect earth from sun's harmful radiations. As you go higher the temp of this layer increases.

3- Mesosphere :-

This is the third layer of the atmosphere. This is the coldest layer of the atmosphere. It starts from 50km to 80km above the earth.

4- Thermosphere :-

As the name indicates the temperature. This is the hottest layer of the atmosphere because it is close to the sun. "Auroras" are formed in this layer because of ionosphere charged particles. Its temperature is rise up to 2000°C or high.

5- Exosphere :-

It is the outer most layer of atmosphere. The temperature is very high. Satellites are orbit in this layer.