

... blood flowing in a double circulation.

... the heart is adapted to (5)

- Q. 4. (a) What is the sequence of strata of atmosphere and on what factors does it depend? (5)
- (b) Describe water cycle and briefly explain the major processes involved in water cycle? (5)
- (c) What is the Difference between asthenosphere and lithosphere? Explain various components of lithosphere. (5)
- (d) Differentiate between food contaminants and food adulterants. (5)(20)
- Q. 5. (a) Define the term "malnutrition". Elaborate its major causes and consequences. (5)

Q.4

(a) **Sequence of Strata of Atmosphere and Depending Factors**

Atmosphere is the blanket of gases surrounding the Earth and enables the life to sustain.

⇒ **Sequence of Strata of Atmosphere**
Following are the strata constituting the atmosphere from bottom to top:

i-Troposphere

It is the outermost sphere or layer of the atmosphere and the weather formation takes place in it.

ii-Stratosphere

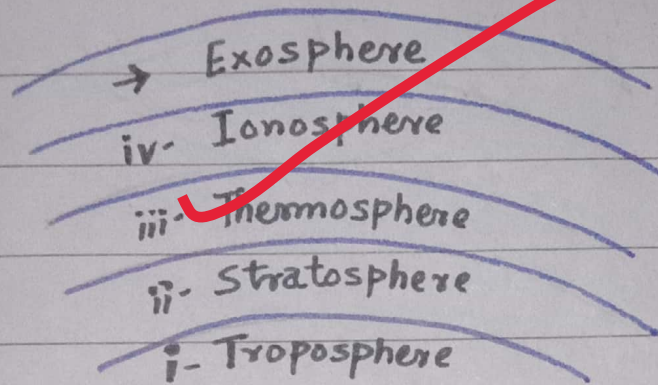
It is the second layer of atmosphere and it houses the ozone layer.

iii-Thermosphere

It is the third layer of atmosphere. In this layer, temperature increases with distance.

iv- Ionosphere

It is the last layer of the atmosphere and it constitutes the last bordering layer of atmosphere. It separates atmosphere from the outer space - exosphere.



Discuss separately that on what factors this partition or existence depends on

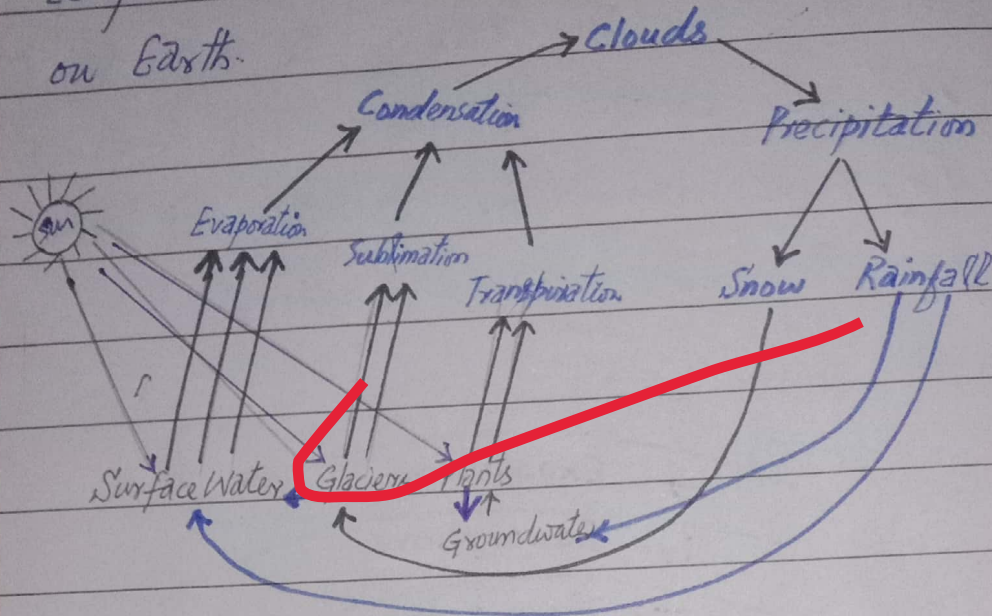
(b) Water Cycle and Major Processes Involved in Water Cycle

1- Water Cycle

Natural cyclic processes responsible for exchange of water among hydrosphere, atmosphere and biosphere is called as water cycle.

Water cycle is natural water filtration phenomenon. It helps in

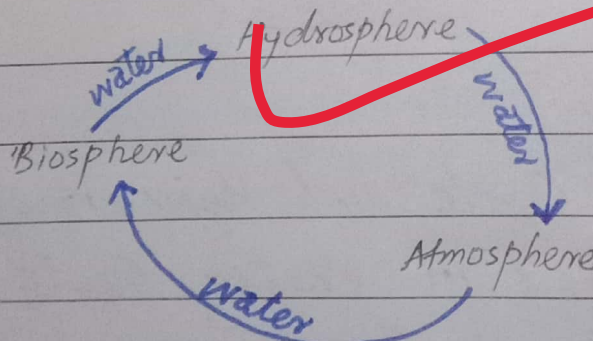
temperature variation and wind circulation on Earth.



Surface water
Plus
Glaciers and Groundwater } Hydrosphere

Plants → Biosphere

Clouds → Atmosphere



Sketch of Water Cycle

2- Major Processes Involved in Water Cycle

i- Evaporation

The transformation of water on the Earth's surface to vapours due to heat provided by the sunlight is called

as evaporation

ii- Sublimation

The direct conversion of glacial mass into vapors is called sublimation.

iii- Transpiration

The release of vapors from the plant's body due to heat is called as transpiration.

iv- Condensation

The conversion of water vapors into water droplets due to fall in temperature is called as condensation. It results in clouds.

v- Precipitation

The conversion of clouds into either snow and rainfall depending upon temperature is called as precipitation.

(d) Difference between Food Contaminants and Food Adulterants

1- Food Contaminants

The detrimental substances which deteriorate the quality of food on addition making it unhealthy are called as food contaminants.

Food contaminants can be

living substance like microbes or non-living substance carrying the germs.

They are generally added to food due to carelessness or unhygienic conditions.

Discuss the differences in tabular form and add multiple arguments

2-Food Adulterants

The substances added intentionally or unintentionally to food to either increase quantity, make attractive or deteriorate their quality are called as food adulterants.

Food adulterants are added to the food substance for economic purposes generally. They either change color, flavor, taste or increase the quantity of food.