

# SCIENCE

## REVISION and MODEL QUESTIONS

**61) State one harmful effect of depletion of ozone layer on the living organisms of the ecosystem.**

**Ans:** If the ozone layer in the atmosphere depletes then the extremely harmful ultraviolet radiations coming from the Sun would reach the earth. These uv-radiations would cause skin cancer and other ailments in men, animals and plants.

**62) Give reason:**

**i) Ionic compounds have high melting point.**

**ii) Ionic compounds are hard crystalline solids.**

**Ans:-** i] In ionic compounds, ions are joined together due to powerful electrostatic forces, therefore, considerable energy is required to separate these ions and break the lattice. Thus ionic compounds have high melting points.

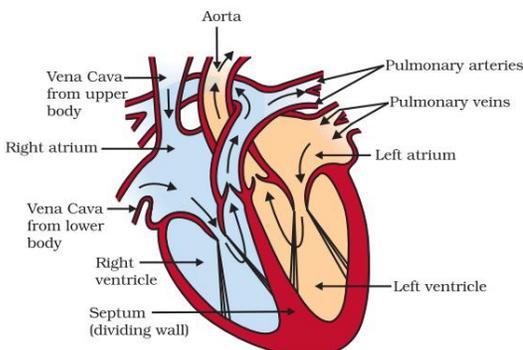
ii] There are solids due to strong force of attraction between oppositely charged ions resulting in the formation of hard time lattice.

**63) What is meant by scattering of light? Use this phenomenon to explain why the clear sky appears blue or the sun appears reddish at sunrise.**

**Ans:** So these particles scatter more effectively the light rays of shorter wavelengths at the blue end than light of longer wavelength at the red end. When the scattered blue light enters our eyes, it gives us the feeling of a blue sky, Colour of the sun appears red at sunrise and sunset. The sun at sunrise and sunset is very near to the horizon, and near the horizon most of the blue light of shorter wave-lengths is scattered away by the particles in the atmosphere. Therefore, the light that reaches our eyes is of longer wavelengths that gives rise to the reddish appearance of the sun.

**64) Draw the Schematic sectional view of the human heart**

**Ans:**



**65) Why does the clear sky appear blue? How would the sky appear in the absence of the**

**earth's atmosphere?**

**Ans:** The fine particles present in the atmosphere scatter mainly blue component of sunlight (i.e., shorter wavelength) more strongly than red component of sunlight (i.e., longer wavelength). So, colour of sky appears blue.

In the absence of the earth's atmosphere, there would not be any scattering, so, sky would have appear dark.

**66) What is photosynthesis? Explain its mechanism.**

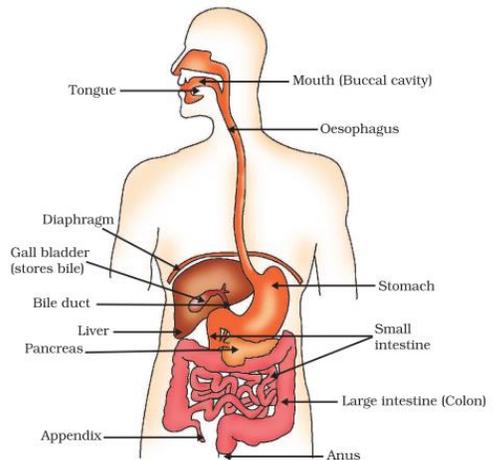
**Ans.** A process in which green plants take carbon dioxide and water and convert it into carbohydrates/food in the presence of sunlight and chlorophyll.

**Mechanism:**

- (i) Absorption of light energy by chlorophyll
- (ii) Conversion of light energy to chemical energy
- (iii) Splitting of water molecules into hydrogen and oxygen.
- (iv) Reduction of carbon dioxide to carbohydrate.

**67) Draw the Human alimentary canal**

**Ans:**



**67) People use a variety of methods to wash clothes. Usually after adding the soap, they 'beat' the clothes on stone, or beat it with a paddle, scrub with a brush or the mixture is agitated in a washing machine. Why is agitation necessary to get clean clothes?**

**Ans:** It is because dirt and grease are strongly attracted towards the clothes, therefore, beating or scrubbing with a brush or agitation in machine is necessary to overcome the force of attraction between fibre and dirt. Secondly, it will produce heat, which helps in removing dirt and grease from fibres.

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