

## CBSE NCERT Class 09 Natural Resources Solved Questions paper -2

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Question: 1. Why plants do not utilize nitrogen directly from atmosphere?

Ans. Most of the plants cannot utilise nitrogen directly from the atmosphere. They use nitrogen only when it is converted into nitrates and nitrites by the process nitrogen fixation.

Question: 2. Name the substance that reduces the amount of dissolved oxygen in water.

Ans. Excessive growth of phytoplanktons reduces dissolved oxygen level in water

Question: 3. Name the organisms found to be very sensitive to the levels of contaminants like sulphur dioxide in the air.

Ans. Lichens

Question: 4. What do you understand by the term 'Natural resources'?

Ans. Natural resources are the variety of substances that human beings get from the nature to meet their basic needs.

Question: 5. What is strip-cropping?

Ans. Strip-cropping is the planting of crops in rows or strips to check flow of water. It is practiced in the sloping areas of hills to check soil erosion

Question: 6. What is greenhouse effect? How is it caused?

Ans. Greenhouse effect is the progressive warming up of the earth's surface due to the blanketing effect of man-made carbon dioxide in the atmosphere. The greenhouse gases increase the temperature of the earth's surface and lower atmosphere.

Question: 7. Rain water sometimes contains traces of acid. Why?

Ans: Due to increase in air pollution some oxides of nitrogen, sulphur, and carbon are released in air when these oxides combine with rainwater it forms nitric acid, sulphuric acid and carbonic acids respectively. These acids fall with the rain water in the form of acid rain.

Question: 8. Why do terrestrial life-forms require fresh water?

Ans: Terrestrial life forms require fresh water because their body cannot get rid of the huge amount of salts present in saline water

Question: 9. Water is known as 'A Wonder Liquid'. Justify this statement by giving any two reasons

Ans: Water is known as 'A Wonder Liquid' because most of the chemical reaction is only possible due to water. Living organism animals, plants, microorganisms, human beings mainly contain water that makes life possible on the earth. Environment temperature, rainfall etc are maintained by water.

Question: 10. How do forests play an important role in maintaining water cycle.

Ans. Forests play important role in maintaining water cycle. Plants bind the soil and help in the percolation of water in the soil and thus add in water table. The water is absorbed back by roots and maximum portion of which is lost into the atmosphere in the form of vapours by transpiration. These vapours condense and form clouds. Clouds after condensation start raining. Thus plants maintain water cycle .

Question: 11. What are aerosols ?

Ans. They are certain chemicals like fluorocarbons released in the air with force in the form of mist or vapour. Fluorocarbons, which deplete the ozone layer on the atmosphere, are emitted by jet aeroplanes in the outer space in the form of aerosols.

Question: 12. "The flow of energy is unidirectional whereas the biogeochemical transfer is cyclic". Explain why?

Ans: A large amount of energy is always transferred from one trophic level to other. This lost of energy cannot be replenished in atmosphere. The flow of energy is unidirectional. The biological substance cannot be lost during the biogeochemical transfer. They are only recycled thus the biogeochemical transfer is cyclic.

Question: 13. Justify the statement—"The nitrogen cycle is supposed to be an ideal cycle in the biosphere".

Ans: The nitrogen cycle is supposed to be an ideal cycle in the biosphere because amount of nitrogen is remain constant throughout the cycle and no nitrogen is lost. thus it follow law of conservation.

Question: 14. (a) What are the two ways by which carbon dioxide is „fixed“ in our atmosphere.(b) Which gas is produced when glucose molecule breaks down releasing energy ?

Ans: (a) the two ways by which carbon dioxide is fixed in our atmosphere are:

- (i) Green plants convert CO<sub>2</sub> into glucose in presence of sunlight.
  - (ii) Many marine animals use carbonates dissolved in sea water to make their shells
- (b) Carbon dioxide

Question: 15. List two forms of oxygen found in the atmosphere. Name the process(s) by which (i) oxygen from the atmosphere is used up. (ii) Oxygen is returned to the atmosphere

Ans: Diatomic oxygen (O<sub>2</sub>) and tri atomic oxygen (O<sub>3</sub>) Oxygen is used up by the processes : combustion, respiration and in the formation of oxides of nitrogen. Oxygen is returned to the atmosphere by photosynthesis.

Question: 16. Explain in how many ways O<sub>2</sub> is used up from the atmosphere and how it returns back to atmosphere?

Ans: Oxygen from the atmosphere is consumed by the humans and plants for respiration, and vehicles, factories etc. for combustion. Respiration and combustion release CO<sub>2</sub>, and this CO<sub>2</sub> is used by the plants for photosynthesis. Plants create Oxygen with photosynthesis.

Question: 17. "Urbanization and industrialisation is mainly responsible for the increase in environment pollution" Justify this statement and suggest ways and means to check it.

Ans:

(a) (i) Increased the consumption of fossil fuel – increased the production of pollution like CO, SO<sub>2</sub>, NO<sub>2</sub>, CO<sub>2</sub> etc.

(ii) CFC has led to depletion in ozone layer results in one entry of U.V rays in to earth's atmosphere.

(iii) Acid rain

(iv) Production of green house gases

(b) Measures:

1. Reduce consumption of fossil fuels
2. Planting more trees
3. Using Isolentanes instead of CFC
4. Usage of non conventional sources of energy e.g. solar, wind, tidal energy