: 99672 40893

Jars Education

Shop no. 2,3,4 hendre pada Badlapur west thane

Time : 1 hour 30 Minute

STD 9 Science
Chapter Based Test

Total Marks : 50

section A

* **Choose the correct option from the given options** [7]

1. The nitrogen molecules present in the air can be converted into nitrates and nitrites by:

(A) A biological process of nitrogen fixation by the bacteria present in the soil.
(B) A biological process of carbon fixation by an animal present in the soil.
(C) A biological process of nitrogen fixation by the fungi present in the soil.
(D) A biological process of nitrogen fixation by the leaves of the plant.

2. Major source of air pollution is:

(A) Burning of fossil fuels.
(B) Burning of wood.
(C) Burning of biogas.
(D) Burning of dung cakes.

3. What would happen, if all the oxygen present in the environment is converted to ozone?

(A) We will be protected more.
(B) It will become poisonous and kill living forms.
(C) Ozone is not stable, hence it will be toxic.
(D) it will help harmful sun radiations to reach earth and damage many life forms.

4. Which of the following is a community of plants and animals which occupies a large geographical area within a particular climate zone?

(A) Biodiversity
(B) Biome
(C) Habituate
(D) Niche

5. Soil is the component of:

(A) Atmosphere.
(B) Hydrosphere.
(C) Lithosphere.
(D) None of the above.

6. Nif genes occur in:

(A) Rhizobium.
(B) Streptococcus.
(C) Penicillium.
(D) Aspergillus.

7. Greenhouse effect is caused by:

(A) Green plants.
(B) Infrared rays.
(C) UV-rays.
(D) X-rays.

* **Fill in the blank with correct answer** [3]

8. The process of photosynthesis and respiration causes the cycling of _____ through the environment.
9. The conversion of atmosphere nitrogen into nitrates is called _____.
10. Atmosphere of Mars is rich in _____.

* **Do as directed** [4]

11. What is ammonification?
12. What are the physical divisions of biosphere called?
13. Mention briefly the role of decomposers of cycling of materials.
14. Organisms play a vital role in nitrogen-fixation. Write names of two such organisms.

section B

*** Answer the Questions in brief** **[10]**

1. How does oxygen and carbon dioxide remain nearly constant in the atmosphere?
2. Explain the role of Sun in soil formation.
3. Where is the major part of fresh water bound up?
4. Name the articles which act as nucleus for water droplets to form around in the atmosphere.
5. How is oxygen replenished in nature?

section C

*** Answer the Questions in detail** **[12]**

1. Write the fate of glucose molecules formed in photosynthesis.
2. Enlist two benefits of water for living beings.
3. Make sketch of hydrological cycle in nature.
4. Fill in the blanks: A, B, and C.

section D

*** Answer the Questions in detail [5 marks each]** **[10]**

1. How is rain produced?
2. What is soil erosion? Give two methods for reducing it.

Section E

*** case study based quetion.** **[4]**

1. Elemental oxygen is normally found in the form of a diatomic molecule. However, in the upper reaches of the atmosphere, a molecule containing three atoms of oxygen is found. This would mean a formula of O3 and this is called ozone. Unlike the normal diatomic molecule of oxygen, ozone is poisonous and we are lucky that it is not stable nearer to the Earth's surface. But it performs an essential function where it is found. It absorbs harmful radiations from the Sun. This prevents those harmful radiations from reaching the surface of the Earth where they may damage many forms of life. Recently it was discovered that this ozone layer was getting depleted. Various man-made compounds like CFCs (carbon compounds having both fluorine and chlorine which are very stable and not degraded by any biological process) were found to persist in the atmosphere. Once they reached the ozone layer, they would react with the ozone molecules. This resulted in a reduction of the ozone layer and recently they have discovered a hole in the ozone layer above the

Antarctica. It is difficult to imagine the consequences for life on Earth if the ozone layer dwindles further, but many people think that it would be better not to take chances. These people advocate working towards stopping all further damage to the ozone layer.

(1) Identify the correct statement

Statement 1 – Ozone is poisonous.

Statement 2 – Absorbs harmful radiations from the Sun

Statement 3 – Ozone prevents those harmful radiations from reaching the surface of the Earth.

Statement 4 – Molecule containing three atoms of oxygen is termed as ozone.

(a) Both 1 & 4

(b) Both 2 & 4

(c) Only 3

(d) All of the above

(2) The molecule containing three atoms of oxygen is termed as

(a) Oxygen

(b) Ozone

(c) Diatomic oxygen

(d) None of above

(3) What is the molecular formula of ozone?

(a) O

(b)O_2

(c) O_3

(d) O_4

(4)Why ozone layer is important?

(5) What is CFC?

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