

## QUIZ: BIOGEOCHEMICAL CYCLES AND OZONE LAYER

1. Depletion of ozone layer is responsible for
  - (a) Certain harmful radiations from the sun to reach the earth's surface.
  - (b) Producing more oxygen in the earth's atmosphere.
  - (c) Global Warming
  - (d) Producing Greenhouse gases
  
2. Carbon is incorporated into life forms directly through the basic process of photosynthesis using
  - (a) Carbonates in shells & water
  - (b) Petroleum
  - (c) Carbon dioxide
  - (d) Lime stone.
  
3. The environmental consequences of increase in CO<sub>2</sub> level in the atmosphere causes
  - (a) Depletion of ozone layer
  - (b) Global warming
  - (c) Increase in acidity of soil
  - (d) Wild fire in forests
  
4. Which of the following processes of water cycle is likely to cause drought in a specific area?
  - (a) Respiration
  - (b) Transpiration
  - (c) Greater rate of Evaporation
  - (d) Condensation
  
5. Which one of the following examples is the gradual increase in earth's temperature?
  - (a) Depletion of ozone layer
  - (b) Increase in CO<sub>2</sub> level dissolved in oceans leading to higher temperature of ocean water
  - (c) Increase in CO<sub>2</sub> level in atmosphere leading to retention of more heat on earth
  - (d) Decrease in CO<sub>2</sub> level in the atmosphere thereby allowing more radiation from the sun to reach the earth.

6. Oxides of nitrogen are produced in the atmosphere due to lightening. These nitrogen oxides are harmful to life forms and crops because
- (a) They cause acid rain
  - (b) They cause respiratory problem
  - (c) They increase the percentage of nitrogen in the atmosphere
  - (d) They disturb the nitrogen cycle of nature

**Answers:**

**1. (a)**

**Options:**

- (a) Correct. As given in questionnaire sheet
- (b) Ozone depletion does not produce oxygen on the earth's surface
- (c) Global Warming is caused by increase of concentration of certain gases known as greenhouse gases
- (d) Greenhouse gases are not the result of ozone depletion but the human activities on the earth.

**Explanation:** Depletion of ozone layer causes ozone hole formation. As a result, harmful radiations from the sun reach the earth.

**2. (c)**

**Options:**

- (a) Carbon is found as carbonates and hydrogen carbonates in various minerals
- (b) Petroleum contains carbon in the form of compounds. It is one of major source of energy
- (c) Correct. As given in questionnaire sheet
- (d) Lime stone is not involved in photosynthesis.

**Explanation:** Carbon dioxide gets converted to glucose by all life forms that contain chlorophyll.

**3. (b)**

**Options:**

- (a) Depletion of Ozone layer is caused due to the presence of CFC's in the atmosphere and not by CO<sub>2</sub>.
- (b) Correct. Same as in questionnaire sheet.
- (c) Soil becomes acidic due to acid rain which is caused due to the presence of gases of oxides of sulphur and nitrogen, in the atmosphere.
- (d) Increase in CO<sub>2</sub> level in the atmosphere will extinguish fire.

**4. (c)**

**Options:**

- (a) Inhaling oxygen and exhaling carbon dioxide is respiration. It is not the cause of drought anywhere.
- (b) Releasing water in atmosphere by plants.
- (c) Correct. As given in questionnaire sheet.
- (d) Condensation of vapours helps in rainfall and not drought.

**Explanation:** The greater the rate of evaporation of water, greater is the chances for drought.

### 5. (c)

**Options:**

- (a) Ozone depletion causes holes in ozone layer leading to harmful radiations from the Sun to reach the earth.
- (b) Increase in CO<sub>2</sub> level dissolved in ocean does not cause increase of temperature of water as oceans are large sources of water.
- (c) Correct. Same as in questionnaire sheet.
- (d) More radiations from the sun reach the earth by ozone depletion and not by decrease of CO<sub>2</sub> level in the atmosphere.

**Explanation:** - Carbon dioxide being a greenhouse gas, does not allow the heat of the Earth to escape into the atmosphere.

### 6. (a)

**Options:**

- (a) Correct. Same as in questionnaire sheet.
- (b) Nitrogen oxides do not cause respiratory problems to crops.
- (c) The nitrogen in the atmosphere becomes a part of nitrogen cycle.
- (d) Nitrogen cycle is not disturbed as nitrogen oxides are converted to nitrogen containing molecules.