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College of Education
Department of Biology

Subject: Question Bank of Ecology & Pollution

Q1/ Define the following:

Food Chain

Modern definition of Ecology

Community

Radiant energy

Contamination

Pollution

Environmental pollution

Pollutants

Ecological Footprint

per capita ecological footprint

Ecological deficit

Air pollution

Grasshopper transport

Water pollution

Point sources

Q2/ Fill the following blanks with correct words:

1. Pollution can take the form of energy, such as.
2. Nutrients flow from Reservoir C to D by the processes of
3. Herbivores feed on,
4. Nitrogen gas (N₂) is very stable in nature because of its
5. Humans arewhen they eat plants such as vegetables.

6. The highest stored chemical energy is present as
7. The various species sharing a habitat thus have the same
8. The study of energy and its transformations is called
9. One kilocalorie is equal to
10. The study of the impact of humans on the environment is called

Q3/ Check the following statements if True or False.

1. Decomposition replenishes the pools of organic nutrients that plants use it.
2. Ammonification is the conversion of organic nitrogen to NH_3 and NH_4^+ .
3. The most important nitrogen-fixing bacteria in the soil are called *Nitrosomonas*.
4. Phosphorus has no gaseous phase and thus no atmospheric component.
5. Visible light occurs between ultraviolet and infrared radiation.
6. Food webs are more complex than food chains.
7. Nutrients flow from Reservoir A to C by the processes of Assimilation & Photosynthesis.
8. Only certain bacteria and a few cyanobacteria can accomplish nitrogen fixation.
9. Nutrient movements in ecosystems and in the biosphere are one-way.
10. The main process driving the water cycle is photosynthesis.

Q4/ Match between two columns.

1	Nitrogenase
2	Large amounts of nitrites
3	CHNOPS
4	Categories of biogeochemical cycles
5	Ernst Haeckel
6	Organic Material available as nutrients
7	Units of heat
8	(NH_3) or $(\text{NH}_4) \rightarrow \text{NO}_3$
9	Stored energy
10	Ecosystem equilibrium
11	Abiotic Factors

XI

I	Letters for the chemical abbreviations
II	Nitrification
III	$R_i = R_k$
IV	Methemoglobinemia
V	Atmospheric Nitrogen Fixation
VI	kcal
VII	potential energy
VIII	Reservoir A
IX	Global and local
X	Named ecology in 1866.
XI	Light, Climate, Water...etc.

Q5/ Answer the following statements:

Three factors determine the severity of a pollutant.

Differentiate between Photosynthesis and Aerobic Cellular Respiration by equations only.

Various physico-chemical components of the ecosystem constitute the abiotic structure, explain it.

Every ecosystem performs the important functions, explain it briefly.

Three factors determine the severity of a pollutant:

What are the differences between pollutants and contaminants?

Classify Pollutants According to the form in which they persist after release into the environment.

The degradation of renewable natural resources and natural services are due to several factors?

Why Do We Have Environmental Problems?

Main Findings of the Millennium Ecosystem Assessment-MEA

Mention five Sustainable solutions for environmental pollution?

Among the various pollution problems, air pollution has caused major concern?

Explain briefly the Anthropogenic sources of air pollution?

Classify air pollutants on the basis of state of matter?

Classify air pollutants on the basis origin?

Classify air pollutants on the basis chemical composition?

Explain how Temperature inversions trap pollutants?

What are the steps of Stratospheric Ozone Destruction by Chlorine Atoms and UV Radiation?

Distinguish between Stratospheric and Tropospheric ozone?

Water is *a national and global security issue?*

Water is *an environmental issue?*