

****Question 1:**** What is the study of living organisms and their interactions with the environment?

****Student Answer:**** Ecology

****Question 2:**** What term refers to all the living organisms in a particular area?

****Student Answer:**** Ecosystem

****Question 3:**** What is the term for a group of organisms of the same species in a specific area?

****Student Answer:**** Population

****Question 4:**** What is the term for the area where an organism lives and interacts with other organisms?

****Student Answer:**** Community

****Question 5:**** What term refers to the physical and biological factors that influence organisms in a particular area?

****Student Answer:**** Biodiversity

****Question 6:**** What term describes the diversity of species, ecosystems, and genetic variation in an area?

****Student Answer:**** Levels of Ecology

****Question 7:**** What term refers to the organisms at the first trophic level of an ecosystem, typically plants?

****Student Answer:**** Primary Producers

****Question 8:**** What is the process by which plants make their own food using sunlight?

****Student Answer:**** Photosynthesis

****Question 9:**** What term refers to the movement of energy through an ecosystem via food chains or webs?

****Student Answer:**** Food webs

****Question 10:**** What is the term for the process of restoring damaged ecosystems?

****Student Answer:**** Conservation

****Question 11:**** What is an ecosystem?

****Student Answer:**** Ecosystem is an area where all the living organisms live in a particular area.

****Question 12:**** How does energy flow through ecosystems?

****Student Answer:**** Energy flow is only in one direction, where 10% of the energy is passed through one trophic level to the next trophic level where other 90% is lost as heat, used for Metabolism.

****Question 13:**** What are the key differences between an individual and a population in ecology?

****Student Answer:** Individual Ecology:- Where Individual Species lives in an particular Area. Population Ecology :- where group of Species lives in an Specific Arca Ex: Group of wolves.**

****Question 14:** How do human activities impact biodiversity?**

****Student Answer:** Human Activities impact biodiversity by Cutting the trees, harming Small Animals, Making more pollution like air, water, soil. these things impact the biodiversity.**

****Question 15:** What is the role of decomposers in an ecosystem?**

****Student Answer:** In an Ecosystem after the primary producers, primary Consumers, Secondary Consumers, Tertiary Consumers, Decomposers gives some bacteria, Algae etc from it.**

****Question 16:** What are trophic levels in an ecosystem?**

****Student Answer:** Trophic Levels is represented as shape of the Pyramid where first will be represented as primary producers next as primary Consumers next Secondary Consumers next as Tertiary Consumers and last as Decomposers in all the levels 10% of energy is passed**

****Question 17:** Why is primary productivity important for ecosystem functioning?**

****Student Answer:** Primary productivity is important for ecosystem functioning because it will show the rise in growth of Gross primary and Net primary productivity for the total energy transfer purpose to go for Secondary Productivity**

****Question 18:** What is mutualism in ecological interactions?**

****Student Answer:** Mutualism: where both the species interact, ie, both the species gets benefited. Ex: Honey be and flower (Honey bee collect nectar from flower and flower gets a chance to pollinate).**

****Question 19:** What is habitat fragmentation?**

****Student Answer:** Habitat fragmentation: Where the habitat living in an location / Specific Area they get fragmented into different source of habitat in an Area.**

****Question 20:** Explain the 10% rule in energy transfer.**

****Student Answer:** The 10% rule is to tranfer the energy in each trophical level and the other 90% of energy loose their heat, for metabolism.**

****Question 21:** What is the role of species diversity in ecosystem functioning?**

****Student Answer:** Species Diversity:- where different kinds of Species dives particular Area. When different kinds of species lives in an particellar area the ecosystem looks diverse. They get benifited by other organisms also and other organisms by them. Ex:- Animals, plants, grasses, butterflies, insects, birds, Ants, Soil, Water, etc.**

****Question 22:** Explain the importance of conservation biology and the strategies used to conserve biodiversity.**

****Student Answer:** Conservation Biology:- It is important for the biodiversity because Many areas without Conservation they get harmed they are not protected as well as when the**

Biodiversity is protected we have our future and as well as their future. Strategies used to conserve biodiversity is urabanisation, Sustainability. Humfication.