



परमाणुऊर्जाशिक्षणसंस्था  
AtomicEnergyEducationSociety  
कार्यपत्रक /Worksheet(2025-26)

कक्षा/Class:VIII

शिष्य/Subject:SCIENCE

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CHAPTER 12: HOW NATURE WORKS IN HARMONY

द्विद्यार्थीकानाम/Name of the student:

अनुक्रमांक /Roll No. \_\_\_\_\_ कक्षा/अनुभागClass /Sec.: \_\_\_\_\_ दिनांक /Date: \_\_\_\_\_

I. Choose the correct answer:

- \_\_\_\_\_ is the ultimate source of energy for almost all ecosystems on Earth.  
a) The Moon  
b) Water  
c) The Sun  
d) Plants
- The best way to maintain ecological balance in cities is\_\_\_\_\_  
a) Burning waste  
b) Tree plantation  
c) Plastic use  
d) Overuse of fertilizers
- What is the role of decomposers in an ecosystem?  
a) To consume other organisms for energy.  
b) To break down dead matter and recycle nutrients.  
c) To absorb sunlight and convert it into energy.  
d) To produce food through photosynthesis.
- The flow of energy in an ecosystem is:  
a) Cyclic  
b) Unidirectional  
c) Irregular  
d) Reversible
- Destruction of mangroves, will mainly affect\_\_\_\_\_  
a) Air quality  
b) Marine life  
c) Rainfall  
d) Soil texture
- What was a major reason for the ban on frog leg exports in India?  
a) Lack of demand  
b) Ecological damage  
c) High production costs  
d) Disease outbreak
- What will happen if the population of snakes is increased drastically in the given food chain?  
Grass → Grasshopper → Frog → Snake → Hawk  
a) Population of green plants will decrease  
b) Population of frog will decrease

- c) Population of snakes will decrease
  - d) Population of hawk will decrease
8. What is the process of pollen transfer in flowers called \_\_\_\_\_
- a) Decomposition
  - b) Photosynthesis
  - c) Pollination
  - d) Germination

**II. Choose the correct answer from options given below for the statements.**

- (a) Both A and R are true, but R is the correct explanation of A**
- (b) Both A and R are true, but R is not the correct explanation of A**
- (c) A is true, but R is false**
- (d) A is false, but R is true**

9. **Assertion (A):** Recycling of paper helps save trees.

**Reason (R):** Paper is made from petroleum products

10. **Assertion (A):** Synthetic fertilizers improve soil health in the long term.

**Reason (R):** They reduce the population of beneficial microorganisms in the soil.

11. **Assertion (A):** Plastic waste affects marine animals.

**Reason (R):** Marine animals often mistake plastic for food.

12. **Assertion (A):** Energy transfer in a food chain is efficient.

**Reason (R):** Each trophic level passes all its energy to the next.

**III. Read the following passage and answer the question carefully.**

In a village near a forest, people notice a sudden increase in mosquitoes and crop pests. Scientists find that due to water pollution from nearby industries, the number of frogs in ponds has drastically reduced. Frogs used to eat mosquitoes and insects that harm crops.

13. Which ecological role did frogs primarily play in this ecosystem?

- a) Primary producers
- b) Primary consumers
- c) Secondary consumers
- d) Decomposers

14. What could be a chain reaction of frog population decline?

- a) Fewer insects and fewer crops
- b) More mosquitoes → more diseases
- c) Clean water → better farming
- d) Less rainfall → drier soil

15. The disappearance of frogs mainly disturbed

- a) Nitrogen cycle
- b) Balance in food chain
- c) Carbon cycle
- d) Oxygen cycle

16. Which step will restore balance most effectively?

- a) Increase pesticide use to kill mosquitoes
- b) Ban industrial waste dumping into ponds
- c) Introduce more carnivores like snakes
- d) Spray chemicals in water bodies

#### **IV. Short answer type questions -I**

17. Differentiate between biotic and abiotic components with examples.
18. Why are green plants called producers?
19. Explain the difference between a community and an ecosystem.
20. How does human activity disturb the balance of nature?
21. Define (i) Mutualism (ii) commensalism
22. Suggest any two ways you can contribute to ecological harmony in daily life.

#### **V. Short answer type questions- II**

23. "Recycling of waste is essential for sustainable living." Justify with suitable examples
24. Draw and explain a simple food web showing interdependence in a forest.
25. List out the protected areas in India for conserving wildlife and their habitats.
26. "Human activities can either disturb or restore balance in nature." Explain with two examples each.