

SAINIK SCHOOL GOPALGANJ
ASSIGNMENTS
BIOLOGY

Chapter 15 : Our Environment
General Instructions

Class: X

-
1. All questions are compulsory.
 2. Question 1 to 10 is multiple choice questions.
 3. Question 11 to 15 is short answer questions.
 4. Question 16 to 20 is long answer questions
-

Q 1. Excessive exposure to ultraviolet radiation causes

- (a) inflammation of liver
- (b) cancer of skin
- (c) damage to the lungs
- (d) jaundice

Q 2. Which one of the following is an artificial ecosystem?

- (a) Lake
- (b) Forest
- (c) Pond
- (d) Crop field

Q 3. Acid rain is caused by the oxides of

- (a) carbon
- (b) nitrogen only
- (c) sulphur only
- (d) sulphur and nitrogen

Q 4. Which of the following is biodegradable?

- (a) Aluminium can
- (b) Polythene bag
- (c) Cowdung
- (d) DDT

Q 5. Which of the following is an abiotic component of an ecosystem?

- (a) Humus
- (b) Bacteria
- (c) Plants
- (d) Fungi

Q 6. Which one of the following pairs belong to the category of primary consumers?

- (a) Eagle and snake
- (b) Grasshoppers & cattle

- (c) Snake and frog
- (d) Water beetles & fish

Q 7. Which of the following chemicals causes depletion of the ozone layer?

- (a) Carbon tetrachloride
- (b) Methane
- (c) Chloro fluoro carbon
- (d) Carbon monoxide

Q 8. In a food chain, the third trophic level is always occupied by

- (a) herbivore
- (b) carnivore
- (c) decomposer
- (d) producer

Q 9. The depletion of the ozone layer causes

- (a) global wanning
- (b) earthquakes
- (c) increased UV radiations
- (d) acid rain

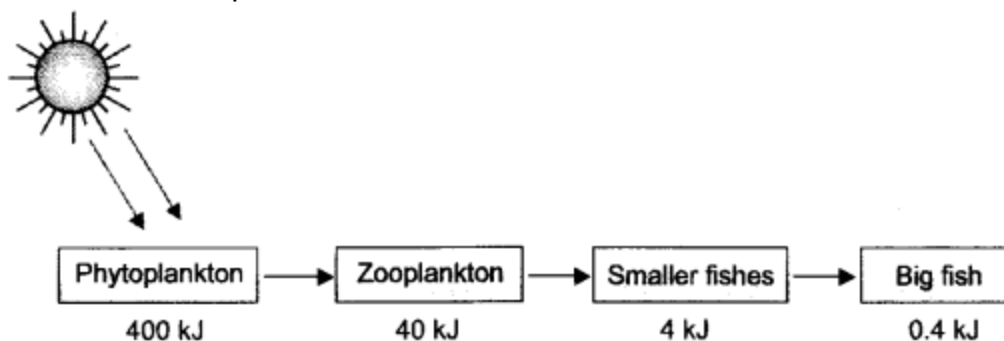
Q 10. In the given foodchain if the amount of energy at the fourth trophic level is 4 kJ, what will be the energy available at the producer level?

Grass → Grasshopper → Frog → Snake

- (a) 4 kJ
- (b) 40 kJ
- (c) 400 kJ
- (d) 4000 kJ

Q11. In a certain study conducted on the occurrence of DDT along food chains in an ecosystem, the concentration of DDT in grass was found to be 0-5 ppm. In sheep, it was 2 ppm and in man it was 10 ppm. Why was the concentration of DDT maximum in case of man ?

Q12. What is depicted in the scheme ?



13. How can we help in reducing the problem of waste disposal ? List any two ways.

14. A list of organisms is given below : Peacock, Snake, Grass, Frog, Grasshopper. Construct a food chain showing snake at the fourth place.

15. Which gas shields the surface of earth from harmful radiations of the sun ? Why are UV radiations harmful to organisms ?

16. In the food chain comprising Tiger, Plants and Goats, which will

(a) Transfer the maximum amount of energy

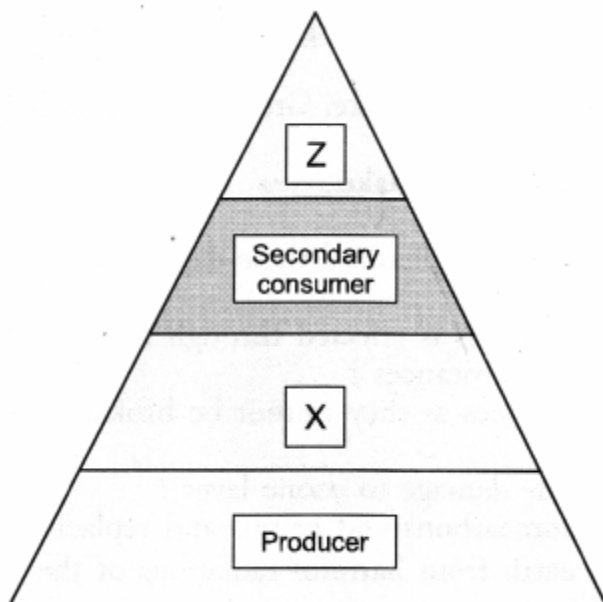
(b) Receive minimum amount of energy ?

17. (a) Draw a line diagram to show flow of solar energy in ecosystem.

(b) Explain how ozone is formed in the atmosphere ? How does it protect living beings from harmful radiations of the sun ?

18. A geographical area contains organisms like snake, grass hopper, peacock, grass and frog. If pesticides was used in this area to kill insects which among the organisms will have maximum amount of pesticide. Name the phenomenon involved.

19. (a) Write the appropriate names of trophic levels Z and X in the figure.



(b) List two natural ecosystems.

(c) List two manmade ecosystems

20. (a) What is ecosystem ?

(b) Differentiate between the food habits of organisms belonging to first and second trophic levels.

(c) Your mother always thought that fruit juices are very healthy for everyone. One day she read in the newspaper that some brands of fruit juices in the market have been found to contain certain level of pesticides in them. She got worried as pesticides are injurious to our health.

(i) How would you explain to your mother about fruit juices getting contaminated with pesticides?

(ii) It is said that when harmful pesticides enter our body as well as in the bodies of other organisms, they get accumulated and beyond a limit cause harm and damage to our organs. Name the phenomenon and write about it.