SELF ASSESSMENT MODEL PAPER – 3 (2025-26)
GENERAL SCIENCE – Paper – II
BIOLOGICAL SCIENCE
Class: X

SECTION – I (5 X 1 = 5)

1. Name two abiotic components of an ecosystem.

Answer: Air, water.

2. Which process is represented in the given equation?

$O_2 \xrightarrow{UV} O + O$

$O + O_2 \xrightarrow{UV} O_3$

Answer: Formation of ozone.

3. Expand UNEP.

Answer: United Nations Environment Programme.

4. Man is only a consumer. Justify.

Answer: Humans cannot make their own food; they depend on plants and animals. So they are consumers.

5. Write a slogan on environmental protection.

Answer: "Save Environment, Save Life."

SECTION – II (3 X 2 = 6)

6. What would happen if all the producers are removed from an ecosystem?

Answer:

- No food will be produced.
- Herbivores will die first, then carnivores.
- Entire ecosystem will collapse.

7. What is biomagnification?

Answer:

Increase of harmful chemicals in the bodies of organisms at each higher trophic level.

8. What is the role of decomposers in the ecosystem?

Answer:

- They break down dead plants and animals.
- They return nutrients to the soil.

SECTION – III (4 X 4 = 16)

9. What steps need to be taken to limit the damage to ozone layer?

Answer: Steps to limit damage to the ozone layer:

- Avoid using CFC-containing products (old ACs, refrigerators).
- Reduce use of aerosols and plastic foams.
- Plant more trees.
- Follow eco-friendly habits.

10. Differences between biodegradable and non-biodegradable substances.

Answer: Differences between biodegradable and non-biodegradable substances:

Biodegradable	Non-biodegradable
Decomposed by microorganisms.	Cannot be decomposed easily.
Do not cause long-term pollution.	Cause long-term pollution.
Get broken down into natural materials like manure.	Stay in the environment for many years.
Safe for soil and environment.	Harmful to soil, water, and living beings.
Examples: food waste, paper, cotton.	Examples: plastic, metals, glass.

11. Study the given table and answer the questions.

Trophic level	Type of organisms	Feeding habit	Example
Producers	Autotrophs	Prepare own food	Green plants, Algae
Primary consumers	Herbivores	Feed on producers	Goat, Rabbit
Secondary consumers	Carnivores	Feed on primary consumers	Frog, Snake
Tertiary consumers	Higher carnivores	Feed on secondary consumers	Eagle, Tiger, Lion

a) On whom does primary consumers depend for their food?

Answer: They depend on producers (plants).

b) Snake is an example of which trophic level.
Answer: Secondary consumer.
c) If a tiger feeds on goat, to which trophic level does the tiger belongs?
Answer: Tertiary consumer.
d) Give an example for Autotrophs.
Answer: Green plants.

12. "Using disposable paper cups is better than using disposable plastic cups." Justify this statement.
Answer:
1. **Paper cups break down easily** in nature.
2. **Plastic cups do not break down** and stay for many years.
3. **Paper cups cause less pollution** to the environment.
4. **Plastic cups can release harmful chemicals** and harm soil, water, animals and humans.

SECTION – IV (1 X 8 = 8)

13. A) Suggest a few environmental friendly practices to reduce waste in your locality.
Answer:
1. Reduce use of plastic.
2. Use cloth bags.
3. Separate wet and dry waste.
4. Recycle paper, glass, metal.
5. Compost kitchen waste.
6. Keep surroundings clean.
7. Use reusable bottles and containers.
8. Take part in local clean-up activities.

(Or)

14. B) Write differences between Producers and Consumers.
Answer: Differences between Producers and Consumers:

Producers	Consumers
1. They make their own food.	1. They cannot make their own food.
2. Use sunlight to prepare food (photosynthesis).	2. Depend on plants or animals for food.
3. They are autotrophs.	3. They are heterotrophs.
4. They are present at the first trophic level of the food chain.	4. They occupy second or higher trophic levels.
5. Convert solar energy into chemical energy (food).	5. Obtain energy by eating plants or animals.
6. Increase oxygen in the atmosphere.	6. Use oxygen for respiration.
7. Examples: green plants, algae, some bacteria.	7. Examples: goat, cow, tiger, lion, humans.
8. Form the base of all food chains.	8. Depend on producers directly or indirectly for food and energy.

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