



INDIAN SCHOOL AL WADI AL KABIR

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| Class: XII | Department: SCIENCE 2020 – 21 SUBJECT: BIOLOGY | Date 30.04.2020 |
| Worksheet No: 02 | UNIT: ECOLOGY (Biodiversity and Conservation+ Environmental Issues) | Note: A4 FILE FORMAT |
| NAME OF THE STUDENT | CLASS & SEC: | ROLL NO. |

MCQs (One mark questions)

1. Which of the following is not a primary greenhouse gas found in earth's atmosphere?

- [A] Carbon dioxide
- [B] Methane
- [C] Water vapour
- [D] Nitrogen oxide

2. Which among the following correctly described "Eutrophication"?

- [A] Over growth leading to bloom of some water species
- [B] Over growth that leads to death of the terrestrial plants
- [C] Changes in climate that leads to over-production of Nitrogen and Phosphates
- [D] All of above

3. Which among the following is the dangerous Green House Gas, created by the Waste Water?

- [A] Nitrogen
- [B] Sulfur Dioxide
- [C] Methane
- [D] Carbon Dioxide

4. In Nitrogen Cycle, soil nitrates are transformed into free nitrogen by:

- [A] Nitrifying bacteria
- [B] Denitrifying bacteria
- [C] Ammonifying bacteria
- [D] Both [A] and [C]

5. Which among the following always decreases in a Food chain across trophic levels?

[A] Number

[B] Accumulated chemicals

[C] Energy

[D] None of the above

Two mark questions

6. The Amazon rain forest is referred to as 'the lungs of the planet'. Mention any one human activity which causes loss of biodiversity in this region.

7. About 20 species of a Cichlid fish became extinct when a particular fish was introduced in Lake Victoria of Africa. Name the invasive fish.

8. Why is genetic variation important in the plant *Rauwolfia vomitoria*?

9. What is meant by 'alien species' invasion? Name one plant and one animal alien species that are a threat to our Indian native species.

10. What is a hot spot. Give two examples.

11. Western Ghats have greater amphibian species diversity than Eastern Ghats. Why?

Three mark questions

12. Why should biodiversity be conserved? List any two ethical arguments in this support.

13. What are the two types of desirable approaches to conserve biodiversity? Explain with examples bringing out the difference between the two types.

14. Explain taking one example, the effect of co-extinction on biodiversity?

15. In the biosphere, immense biological diversity exists at all levels of biological organization. Explain any two levels of biodiversity?

16. The sacred grooves of Aravalli hills and Ooty botanical garden, both aim at biodiversity conservation. How do they differ in their approaches? Explain.

17. List the reasons that account for the greater biological diversity in tropics?

18. Taking one example each of habitat loss and fragmentation, explain how the two are responsible for biodiversity loss.

Five mark questions

19.a) Which type of graph curve is obtained when species richness is plotted against area? Draw the graph.

b) Identify the equation and state each component of the equation.

20.a) Categorize the following into in-situ and ex-situ approaches of biodiversity conservation.
i) Botanical gardens ii) Wild life sanctuaries iii) Gene bank iv) Biosphere reserves v) Sacred forests/lakes vi) Pollen banks vii) Tissue culture viii) Cryo-preservation
b) Differentiate between in-situ and ex-situ approaches of biodiversity conservation.

21.a) If a species of fish becomes extinct, all those parasites, specific to that fish also face extinction. Which of the major cause describe as —the evil Quartet’s is being accounted?
b)Categorize the followings statement into narrowly utilitarian, broadly utilitarian and ethical reason:-
i) Every species in biodiversity has an intrinsic value even if it not of value to us.
ii) Human beings device a number of economic benefits like food, fiber etc from biodiversity.
iii) Biodiversity provides ecosystem services which can not be given price tag. Justify your categorization also

22.a) Explain bio magnification of DDT in an aquatic food chain. How does it effects the bird population.
b) What is eutrophication?

Previous Board questions

23. Describe electrostatic precipitator along with a diagram?
24. Explain the relationship between CFC’s and Ozone in the stratosphere
25. Why is it desirable to use unleaded petrol in vehicles fitted with catalytic converters?
26. Expand BOD? And state its relationship with water pollution.
27. Describe the integrated waste water treatment initiated in the town of Arcata.
28. How did Bangalore managed to find an ideal solution for plastic waste, briefly explain.

Prepared by : Ms. Agnes Aranha

Checked by : HOD - SCIENCE