

SAINIK SCHOOL GOPALGANJ
ASSIGNMENTS
BIOLOGY (044)

Chapter 15: Biodiversity and Conservation
General Instructions

Class: XII

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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
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Q1. The most important reason for biodiversity loss in today's age is

- (a) over-exploitation
- (b) co-extinctions
- (c) alien species invasions
- (d) fragmentation and habitat loss

Q2. Biodiversity loss can lead to everything except this

- (a) increased resistance to the environmental perturbation
- (b) a decline in plant production
- (c) increased variability in water use
- (d) increased variability in pest and disease cycle

Q3. Which of these is not a reason accounting for greater biodiversity of tropics?

- (a) more niche specialization
- (b) availability of more solar energy
- (c) more time for species diversification
- (d) large seasonal variations in environmental factors

Q4. The main difference between the 'Sixth extinction' and the previous five extinctions is that, the sixth extinction

- (a) mainly affects plants
- (b) mainly occurs on islands
- (c) occurs at a faster rate
- (d) is exclusive of human activities

Q5. The hot spots of biodiversity are characterized by:

- (a) low endemism and low threat of extinction
- (b) low endemism and high threat of extinction

- (c) high endemism and low threat of extinction
- (d) high endemism and high threat of extinction

Q6. Presence of plants organised into well defined vertical layers based on their heights can be best observed in

- (a) grassland
- (b) tropical savannah
- (c) tropical rain forest
- (d) temperate forest

Q7. Which of these is related to Ex-situ conservation of threatened plants and animals?

- (a) Biodiversity hotspots
- (b) Wildlife safari parks
- (c) Amazon rainforest
- (d) Himalayan region

Q8. The region of biosphere reserve that is protected legally, where no human activity takes place is known as

- (a) transition zone
- (b) buffer zone
- (c) core zone
- (d) restoration zone

Q9. Pick the correct match

- (a) Stratification – Population
- (b) Aerenchyma – Opuntia
- (c) Age Pyramid – Biome
- (d) *Parthenium hysterophorus* – a threat to biodiversity

Q10. The National aquatic animal of India is

- (a) Sea horse
- (b) River Dolphin
- (c) Blue whale
- (d) Gangetic shark

Q11. Which of the following according to you is the major cause for loss of biodiversity amongst the four main causes of loss of biodiversity (Habitat loss and fragmentation, alien species invasion, over-exploitation and co-extinctions)? Justify your pick.

Q12. Why is there greater biodiversity in subtropical/tropical regions than in temperate regions?

Q13. What are the factors that determine a species as threatened?

Q14. State two ways through which humans are benefitted from biodiversity.

Q15. Why does diversity amongst species decline as we move away from the equator?

Q16. Explain how species diversity of an area is reduced by the invasion of an alien species.

Q17. How can the loss of biodiversity be prevented?

Q18. Besides the relationship used by Paul Ehrlich, can you arrive at a scientific explanation to explain the direct association between stability and diversity of an ecosystem?

Q19. Write notes on the 'rivet popper hypotheses' by Paul Ehrlich.

Q20. Explain the ecosystem service. Write any four ecosystem services rendered by the natural ecosystem. Are you in support or against imposing a charge on the service given by the ecosystem?