

Biodiversity and Conservation — Assignment 1

Class 12 Biology · Topic-wise question bank covering every concept of the chapter · Narayan Gurukul Academy

Instructions: (1) Attempt all questions. This worksheet walks through every concept of the chapter, topic by topic.
(2) The interactive MCQ version of these questions (with instant answer reveal) is available on the notes page.
(3) Universal values: $g = 10 \text{ m/s}^2$ unless stated. Give answers with correct SI units.

What is Biodiversity?

MCQ Questions (choose the correct option)

- Biodiversity refers to
 - variety of life
 - only species count
 - only genes
 - only ecosystems
- Genetic diversity refers to variation
 - within a species
 - between ecosystems
 - between species only
 - in climate
- Species diversity refers to
 - variety of species
 - variety of genes
 - variety of ecosystems
 - variety of climates
- Ecological diversity refers to
 - variety of ecosystems
 - variety of genes
 - variety of species
 - variety of climates

1 Mark Questions

- What is biodiversity?
- Name the levels of biodiversity.
- What is genetic diversity?

2 Mark Questions

- What is species diversity?
- What is ecological diversity?

3 Mark Questions

- Describe the levels of biodiversity.
- Explain the concept of biodiversity with examples.

Patterns of Biodiversity

MCQ Questions (choose the correct option)

1. Species richness generally
 - (A) decreases towards the poles
 - (B) increases towards the poles
 - (C) is uniform
 - (D) is random
2. The species–area relationship shows that species richness increases with
 - (A) area
 - (B) altitude
 - (C) depth
 - (D) salinity
3. The latitudinal gradient shows the highest diversity at the
 - (A) equator
 - (B) poles
 - (C) tropics only
 - (D) deserts
4. Tropical regions are more diverse because of
 - (A) more evolutionary time and energy
 - (B) less rainfall
 - (C) low temperature
 - (D) isolation

1 Mark Questions

1. What is the species–area relationship?
2. State the latitudinal gradient.
3. Why are the tropics more diverse?

2 Mark Questions

1. Explain the latitudinal gradient of biodiversity.
2. Explain the species–area relationship.

3 Mark Questions

1. Describe the patterns of biodiversity.
2. Explain the latitudinal gradient and its causes.

Importance of Biodiversity

MCQ Questions (choose the correct option)

1. The 'Rivet Popper Hypothesis' was proposed by
 - (A) Paul Ehrlich
 - (B) Darwin
 - (C) Odum
 - (D) Tansley
2. Biodiversity is important for

- (A) ecological stability
 - (B) only food
 - (C) only medicine
 - (D) only aesthetics
3. The 'Rivet Popper Hypothesis' compares an ecosystem to
- (A) an aeroplane
 - (B) a book
 - (C) a machine
 - (D) a river
4. Biodiversity provides
- (A) economic and ecological benefits
 - (B) only aesthetic value
 - (C) only food
 - (D) no benefits

1 Mark Questions

1. What is the 'Rivet Popper Hypothesis'?
2. Give one economic use of biodiversity.
3. Why is biodiversity important for stability?

2 Mark Questions

1. Explain the Rivet Popper Hypothesis.
2. Give two reasons for conserving biodiversity.

3 Mark Questions

1. Explain the importance of biodiversity.
2. Describe the ecological and economic value of biodiversity.

Loss of Biodiversity

MCQ Questions (choose the correct option)

1. The 'Evil Quartet' refers to
 - (A) four causes of biodiversity loss
 - (B) four hotspots
 - (C) four species
 - (D) four ecosystems
2. The most important cause of biodiversity loss is
 - (A) habitat loss and fragmentation
 - (B) co-extinction
 - (C) alien species
 - (D) over-exploitation
3. The introduction of alien species can cause
 - (A) decline of native species
 - (B) increase in native species
 - (C) no change

(D) increased rainfall

4. Co-extinction means

- (A) extinction of a species due to the loss of another
- (B) extinction of two species simultaneously
- (C) introduction of species
- (D) conservation of species

1 Mark Questions

1. What is the 'Evil Quartet'?
2. Name the four causes of biodiversity loss.
3. What is co-extinction?

2 Mark Questions

1. What is habitat fragmentation?
2. How do alien species cause biodiversity loss?

3 Mark Questions

1. Describe the causes of biodiversity loss.
2. Explain the 'Evil Quartet' with examples.

Biodiversity Hotspots

MCQ Questions (choose the correct option)

1. The number of global biodiversity hotspots is
 - (A) 36
 - (B) 25
 - (C) 10
 - (D) 50
2. The Western Ghats is a
 - (A) biodiversity hotspot
 - (B) national park
 - (C) seed bank
 - (D) zoo
3. A biodiversity hotspot has high
 - (A) endemism and threat
 - (B) rainfall only
 - (C) temperature only
 - (D) altitude only
4. The Eastern Himalayas is a biodiversity hotspot in
 - (A) India
 - (B) Africa
 - (C) Europe
 - (D) Australia

1 Mark Questions

1. What is a biodiversity hotspot?
2. How many hotspots are in the world?
3. Name two hotspots in India.

2 Mark Questions

1. What makes a region a biodiversity hotspot?
2. Name two biodiversity hotspots in India.

3 Mark Questions

1. Explain biodiversity hotspots with examples.
2. Describe the biodiversity hotspots of India.

Conservation Strategies — In Situ and Ex Situ

MCQ Questions (choose the correct option)

1. In situ conservation means conservation
 - (A) in the natural habitat
 - (B) in a zoo
 - (C) in a seed bank
 - (D) in a laboratory
2. A biosphere reserve is an example of
 - (A) in situ conservation
 - (B) ex situ conservation
 - (C) a seed bank
 - (D) a zoo
3. A national park allows
 - (A) no human activity
 - (B) all human activity
 - (C) only grazing
 - (D) only logging
4. Ex situ conservation includes
 - (A) zoos and seed banks
 - (B) national parks
 - (C) sanctuaries
 - (D) biosphere reserves

1 Mark Questions

1. Differentiate between in situ and ex situ conservation.
2. What is a biosphere reserve?
3. What is a seed bank?

2 Mark Questions

1. How does a national park differ from a sanctuary?
2. What is ex situ conservation? Give an example.

3 Mark Questions

1. Describe the strategies of in situ conservation.
2. Describe the strategies of ex situ conservation.

International Efforts and Summary

MCQ Questions (choose the correct option)

1. The Ramsar Convention deals with
 - (A) conservation of wetlands
 - (B) forests
 - (C) deserts
 - (D) mountains
2. The Convention on Biological Diversity was held at
 - (A) Rio de Janeiro
 - (B) Paris
 - (C) Kyoto
 - (D) Geneva
3. Silent Valley is famous for
 - (A) tropical rainforest
 - (B) desert
 - (C) grassland
 - (D) wetland
4. International efforts aim at
 - (A) global conservation
 - (B) only economic growth
 - (C) only agriculture
 - (D) only industry

1 Mark Questions

1. What is the Ramsar Convention?
2. What is Silent Valley famous for?
3. Name one international conservation effort.

2 Mark Questions

1. What is the Convention on Biological Diversity?
2. Why are international efforts needed for conservation?

3 Mark Questions

1. Describe international efforts for biodiversity conservation.
2. Explain the significance of the Ramsar Convention.