

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2025
(Sixth Semester)

Branch – ZOOLOGY

ENVIRONMENTAL BIOLOGY

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

- 1 An example for biotic factor is -----
(i) Temperature (ii) Soil
(iii) Predation (iv) Light
- 2 Which type of ecological pyramid represents the total dry mass of organisms at each trophic level?
(i) Pyramid of Energy (ii) Pyramid of Numbers
(iii) Pyramid of Biomass (iv) Pyramid of productivity
- 3 Which biome supports the highest biodiversity among terrestrial habitats?
(i) Desert Biome (ii) Forest Biome
(iii) Cave Biome (iv) Deep Sea Habitat
- 4 The behavior in animals is characterized by selfless actions that benefit others at a cost to oneself
(i) Altruism (ii) Foraging
(iii) Aggression (iv) Territoriality
- 5 The term used for the depth based distribution of organisms in the ocean is
(i) Zoogeographic Zoning (ii) Habitat Stratification
(iii) Biotic Zonation (iv) Bathymetric Distribution

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

- 6 a Discuss the importance of abiotic factors in an ecosystem.
OR
b Differentiate commensalism and parasitism with example.
- 7 a Outline the concept of producers, consumers and decomposers with example
OR
b "Pond is a natural ecosystem with rich flora and fauna" – Justify.
- 8 a Bring out the ecological significance of pelagic habitat.
OR
b Summarize different zones of the deep sea habitat and the animal adaptation.
- 9 a Define natality and mortality. Explain their influence in population growth.
OR
b Identify the role of bioremediation in reducing pollution.
- 10 a Describe the different types of barriers to animal dispersal with examples.
OR
b List any five endangered flora and fauna species in India.

Cont...

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks (5 x 6 = 30)

- 11 a Expound the concept of mutualism with suitable example.
OR
b Trace the major subdivisions of ecology and their significance.
- 12 a Write short notes on (i) Food Chain and (ii) Food Web.
OR
b Analyze the process of ecological succession with examples of primary and secondary succession.
- 13 a Compare marine and fresh water habitats with examples.
OR
b Highlight the characteristics of forest biomes and their role in maintaining ecological balance.
- 14 a Elucidate the concept of behavioural ecology with emphasis on altruism and mating behavior.
OR
b Elaborate the causes, consequences and prevention of water pollution.
- 15 a Narrate the zoogeographic regions of the world and their characteristic fauna.
OR
b Identify the role of national parks, wildlife sanctuaries and biosphere reserves in conserving biodiversity in India.

Z-Z-Z

END