

(6 pages)

Reg. No. :

Code No. : 6807

Sub. Code : KZOM 22

M.Sc. (CBCS) DEGREE EXAMINATION,
APRIL 2017.

Second Semester

Zoology

ENVIRONMENTAL BIOLOGY AND BIODIVERSITY

(For those who joined in July 2016 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. Hot spots are primarily designated on basis
 - (a) Endemism
 - (b) Species diversity
 - (c) Area covered species
 - (d) Flowering plant species

2. Temporary fluctuation in population size is due to
 - (a) Migration
 - (b) Carrying capacity
 - (c) Bottle neck
 - (d) Interspecific competition
3. Which national park is not correctly matched with its organism
 - (a) Ranthambore-Bengal Tiger
 - (b) Rajaji-Hollock gibbon
 - (c) Kanchanjanga-Rhino ceros
 - (d) Bandipur-Elephant
4. Which of the following is not a solution of global warming?
 - (a) Reducing fossil fuel consumption
 - (b) Planting more trees
 - (c) Deforestation
 - (d) None of the above
5. Phytoplankton spends very little energy on developing protective structures against predator, this suggests that why
 - (a) Food chain is small
 - (b) There is less competition
 - (c) Productivity of aquatic ecosystem is low
 - (d) Assimilation efficiency is high in aquatic ecosystem



6. Biodiversity hot spots are characterized on the basis of
- (a) Endemic flowering plants and threat perception
 - (b) Endemic flowering plants
 - (c) Species of flowering plants
 - (d) Threat perception
7. Global atmospheric temperatures are likely to be increased due to
- (a) Burning of fossil fuel
 - (b) Water pollution
 - (c) Soil erosion
 - (d) None of the above
8. The average life expectancy around the world is currently
- (a) Decreasing (b) Increasing
 - (c) Not changing (d) Stabilizing
9. The zero population growth due to equal birth and death rates is called
- (a) Natural increase
 - (b) Demographic transition
 - (c) Fertility rate
 - (d) Replacement level

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10. Which of the following is a problem not associated with population growth?
- (a) Increased resource consumption
 - (b) Environmental pollution
 - (c) Food and energy storages
 - (d) None of the above

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Elaborate ecological stability and its types.

Or

- (b) Explain measurement of primary production and its types.

12. (a) Explain Liebig's law and Shelford's law of tolerance.

Or

- (b) Give a detailed account on environmental education and its importance.

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13. (a) Explain the status of Indian and world resources.

Or

- (b) Discuss various energy resources.

14. (a) Elaborate on the concepts of niche with suitable illustrations.

Or

- (b) Describe ecosystem diversity.

15. (a) Explain fragmentation of biodiversity.

Or

- (b) Elaborate on wildlife management in India.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Explain the basic concepts and characteristics of ecosystem.

Or

- (b) Describe various atmospheric cycles.

17. (a) Explain about various Environmental Challenges in India. Brief about various protection and restoration techniques.

Or

- (b) Classify various pollutants with suitable illustrations and its control measures.

18. (a) Explain the ecological and economic importance of forest and management of forest resources in India.

Or

- (b) Write a detailed note on energy resources and their types in India.

19. (a) Explain in detail on various indices of Biodiversity.

Or

- (b) Briefly explain about hotspots and add a note on habitat conservation.

20. (a) Describe wildlife sanctuaries, national parks and Biosphere reserves of India.

Or

- (b) Give a detailed note on fragmentation of biodiversity.

