

(6 pages)

Reg. No. :

Code No.: 5439

Sub. Code: ZBOM 42

M.Sc. (CBCS) DEGREE EXAMINATION, APRIL 2023.

Fourth Semester

Botany – Core

PLANT ECOLOGY AND CONSERVATION BIOLOGY

(For those who joined in July 2021 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. The natural place of an organism or community is known as
(a) Niche (b) Biome
(c) Habitat (d) Habit
2. The bottom area where production is less than respiration in a pond ecosystem is termed as
(a) Profundal zone (b) Tidal zone
(c) Benthic zone (d) Limnetic zone

3. This is an example of non-polluting renewable type of energy
(a) tidal (b) wind
(c) solar (d) all of these
4. This group consists of non-renewable organic resources
(a) Water, air and minerals
(b) natural gas, oil and coal
(c) wood, water and natural pastures
(d) sand, air and clay
5. Which city has highest arsenic contamination in drinking water?
(a) Kanpur (b) Delhi
(c) Kolkatta (d) Chennai
6. 5th June is observed as
(a) World forest day
(b) World environment day
(c) World wildlife day
(d) World population day

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7. _____ is not generally seen in biodiversity hotspots.

- (a) Endemism
- (b) Species richness
- (c) Loss of diversity
- (d) lesser interspecific competition

8. What is Biodiversity?

- (a) It is environmental science
- (b) It is subject in biology
- (c) It is varieties of life on earth
- (d) is distinction in biology subject

9. _____ is the forest cover to be maintained as per the National Forest Policy (1988)

- (a) 67% for hills & 33% for plains
- (b) 37% for hills & 11% for plains
- (c) 17% for hills & 23% for plains
- (d) None of the above

10. Established in 1936, _____ is India's first National Park.

- (a) Bandhavgarh National Park
- (b) Indravati National Park
- (c) Jim Corbett National Park
- (d) Gir National Park

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PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).
Each answer should not exceed 250 words.

11. (a) Extend the scope of ecology.

Or

(b) Write notes on plant community.

12. (a) Extend the environmental resources.

Or

(b) Determine the environmental education.

13. (a) Identify the environmental issues in your surroundings.

Or

(b) Infer the causes of thermal pollution.

14. (a) Analyze the threats to biodiversity.

Or

(b) Construct the genetic diversity in an ecosystem.

15. (a) Contrast Narmada Bacho Andolan.

Or

(b) Estimate biosphere reserves.

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PART C — (5 × 8 = 40 marks)

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

Each answer should not exceed 600 words.

16. (a) Illustrate marine ecosystem.

Or

- (b) Demonstrate the estuarine ecosystem.

17. (a) Outline biomes in the world.

Or

- (b) Explain the non-renewable energy resources

18. (a) Determine the causes, effects and control measures of air pollution.

Or

- (b) Examine deforestation and its effects in environment.

19. (a) Justify dispersal barrier hypothesis.

Or

- (b) Describe Land-Bridges hypothesis.

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20. (a) Illustrate the role of biodiversity management by IUCN.

Or

- (b) Evaluate the cryopreservation method for *in situ* conservation.
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