25900218

Reg.No : .....

Name : .....

MAHATMA GANDHI UNIVERSITY, KOTTAYAM

MGU-UGP (HONOURS) REGULAR EXAMINATION MARCH 2025

SECOND SEMESTER

Discipline Specific Core Course (DSC) - MG2DSCZIM100,MG2DSCZGY100-

ENVIRONMENTAL BIOLOGY

(2024 ADMISSION ONWARDS)

Duration: 1.5 Hours **Maximum Marks: 50**

Remember(K), Understand(U), Apply(A), Analyse(An), Evaluate(E), Create(C), Skill(S), Interest(I) and Appreciation(Ap)

Students should attempt at least one question from each course outcome to enhance their overall outcome attainability.

Part A

Multiple Choice Questions

Answer all questions

Each question carries 1 marks

1. The pyramid of numbers can be: [K] / [CO1]

   a). Upright b). Inverted

   c). Mixed d). All the above

2. Which of the following human activities is directly responsible for increasing atmospheric carbon dioxide levels? [K] / [CO1]

   a). Burning fossil fuels b). Deforestation

   c). Industrial activities d). All of the above

3. Branch of science that deals with the study of population is called ..... . [K] / [CO2]

   a). Demography b). Ecology

   c). Synecology d). Dermatology

4. Select the reason why biodiversity is important for ecosystem stability. [U] / [CO3]

a). Resilience b). Dominance

c). Competition d). Growth

5. Identify the sampling method which involves placing a square frame at random locations. [K] / [CO3]

a). Quadrat b). Transect

c). Simpson d). Shannon-Weiner

6. Identify which of the following is NOT an ecosystem service. [K] / [CO3]

a). Climate regulation b). Pollution

c). Pollination d). Nutrient cycling

7. Floods can lead to outbreaks of : [K] / [CO4]

a). Chicken pox b). Hepatitis B

c). Cholera d). Cancers

8. Pottassium Iodide pills were distributed to survivors of Chernobyl Nuclear Power Plant explosion to prevent: [U] / [CO4]

a). Thyroid Cancer b). Sepsis

c). Bronchitis d). Pnemonia

9. Kyoto Protocol was aimed at ..... . [K] / [CO4]

a). Reduction of GHG emissions b). Protection of Ozone layer

c). Wetland conservation d). Disaster management

10. Select how afforestation can help with carbon sequestration from the options below. [U] / [CO4]

a). By increasing burning of fossil fuels b). By capturing CO_2 through photosynthesis

c). By growing algae that absorb CO_2 from the air d). By releasing CO_2 from forests into the air

11. The primary objective of the Wildlife Protection Act of 1972 is : [K] / [CO4]

a). Legal recognition to zoos and aquariums

b). Safeguard the interests of wildlife

c). Regulate animal testings

d). Permitting sustainable hunting

12. The Environment Protection (Amendment) Rules, 2022, focus on which of the following aspects regarding industrial activities? [U] / [CO4]

a). Strict hazardous waste management

b). Abolishing restrictions on industries

c). Relaxing emission standards for small-scale industries

d). Unregulated urbanization

[1x12 = 12]

Part B

Short Answer Questions

Answer any **6** questions

Each question carries **3** marks

13. Describe the eco-friendly approaches that contribute to environmental conservation. [U] / [CO1]

14. Justify why air is considered an important abiotic factor in an ecosystem. [U] / [CO1]

15. List the peculiarities of Linear Survivorship Curve. [K] / [CO2]

16. Compare intraspecific competition and interspecific competition. [U] / [CO2]

17. Identify the key goals of the World Wide Fund for Nature (WWF). [U] / [CO3]

18. Summarize the highlights of G20 Summit 2023. [U] / [CO3]

19. Discuss the impact of overexploitation on biodiversity. [U] / [CO3]

20. Outline the primary goals of establishing biosphere reserves. [U] / [CO3]

[3x6 = 18]

Part C

Short Essay Questions

Answer any **4** questions

Each question carries **5** marks

21. Energy flow in an ecosystem is unidirectional. Justify. [U] / [CO1]

22. Explain the concept of community stratification in ecological systems. [U] / [CO2]

23. Describe the key legal provisions under the Biological Diversity Act, 2002. [U] / [CO3]

24. Describe the origin and impact of the Chipko Movement. [U] / [CO3]

25. Identify the key policies and regulations related to watershed management in India. [U] / [CO4]

26. Describe the different types of solid waste and their sources. [U] / [CO4]

[5x4 = 20]