

**ANEKANT EDUCATION SOCIETY'S
TULJARAM CHATURCHAND COLLEGE OF ARTS, SCIENCE AND COMMERCE
AUTONOMOUS INSTITUTE
QUESTION BANK**

Class: T.Y.B.Sc. (Semester – V)

Paper Code: ZOO: 3504

Environmental Biology and Toxicology Paper: IV Credit: 4

A. One/Two Marks question

1. What is pollution?
2. Define ecosystem.
3. What are abiotic factors?
4. What are biotic factors?
5. What are energy flow models?
6. What are the producers?
7. What are consumers in ecosystem?
8. What is food chain?
9. What is food web?
10. Enlist any three top consumers.
11. What are ecological pyramids?
12. Define air pollution.
13. Define noise.
14. What are the causes of acid rain?
15. Define water pollution.
16. What are bio-indicators?
17. Enlist the factors responsible for population regulation.
18. What is difference between renewable and non-renewable energy sources.
19. Define conservation.
20. What is wildlife depletion?
21. Define vulnerable species.
22. Define toxicology and toxicant.
23. What is LD₅₀?
24. What are pesticides?
25. What are bio-pesticides.

B. Four/Five Marks question

1. Describe various abiotic factors.
2. Describe various biotic factors.
3. Describe the energy flow in ecosystem.
4. Describe the Y-shaped energy flow model.
5. Describe the universal model of energy flow.
6. Explain the food chain in forest ecosystem.
7. Explain the concept of food web.
8. What are ecological pyramids? Explain pyramid of biomass.
9. What are ecological pyramids? Explain pyramid of number.
10. Explain various environmental pollutants.
11. What is air pollution? Describe various sources of air pollution.
12. Describe the consequences of air pollution.
13. Explain ozone layer depletion and its consequences.
14. Explain various sources of water pollution in brief.
15. Describe the agricultural and industrial wastes.
16. Describe various sources of water pollution.
17. Define noise pollution and explain the sources of it.
18. Explain various control measures of noise pollution.
19. Describe various bio-indicators of pollution.
20. Describe the demographics of population.
21. Describe logistic population growth model.
22. What are the differences between renewable and non-renewable energy resources?
23. Explain various methods for conservation of forest.
24. Explain the conventional and non-conventional energy sources.
25. Explain Kyoto's flexible mechanisms.
26. Describe the importance of wildlife management.
27. Describe the various wildlife conservation methods.
28. Describe various types of toxicants.
29. Describe in brief the factors influencing toxicity.
30. Describe dose, LD₅₀ and LC₅₀.
31. Describe the consequences of over use of fertilizers.
32. Describe the concept of toxin free farming.

C. Write a short note on.

1. The ecosystem.
2. Energy flow

3. Food web
4. Pyramid of number
5. Pyramid of biomass.
6. Fresh water ecosystem.
7. Acid rain.
8. Greenhouse effect.
9. Ozone layer depletion.
10. Domestic sewage.
11. Water pollution.
12. Consequences of soil pollution.
13. Control measures of noise pollution.
14. Environmental management.
15. Urbanization and industrialization.
16. Population explosion.
17. Regulation of population size.
18. Natural resources.
19. Forest conservation.
20. Emission allowances.
21. Emission market.
22. Importance of wildlife management in India.
23. Types of toxicants.
24. Bio-fertilizers and bio-pesticides.
25. Food additives.

D. Questions related to syllabus

1. Considering grass, deer and tiger in a wildlife ecosystem explain the population dynamics.
2. Explain the deep sea ecosystem where sunlight cannot reach.
3. Why the pyramid of parasite number is inverted?
4. How we can correlate the industrialization and pollution?
5. Why the number of vultures decreased? How it will affect the ecosystem?
6. Explain various methods for plastic waste management.
7. How improper irrigation and overuse of synthetic fertilizers can affect the soil quality?
8. Which policies and strategies should be applied to control increasing human population?
9. Explain the reasons behind the decrease in tiger population.
10. What is the importance of lethal dose, LD_{50} and LC_{50} in pharmaceutical sciences?
11. Explain the integrated pest management for sustainable development.

E. Multiple Choice Question

1. Environmental biology is also known as _____.
A. Ecology B. Ecosystem
C. Environmental studies D. Pedology
2. The branch of ecology which deals with the study of individual species and population in relation with its environment is called as _____.
A. Ecology B. habitat ecology
C. Synecology D. Autecology
3. E. P. Odum defined ecology as “Structure and function of _____”.
A. Nature B. Biology
C. Environment D. Ecology
4. A community is also known as _____.
A. Ecosystem B. Biology
C. Synecology D. Biocoenosis
5. The branch of ecology dealing with energy flow and nutrient cycling within ecosystems is called as _____.
A. Radiation ecology B. Production ecology
C. Energy flow D. Pyramids
6. The biotic and abiotic components are linked together through _____.
A. Nutrient cycles and energy flows B. Nutrient cycle
C. Energy flow D. Pyramids
7. The _____ release back the carbon to the environment by breaking down dead organic matter.
A. primary consumers B. Secondary consumers
C. Tertiary consumers D. Pyramids
8. The examples of abiotic factors are _____.
A. Lichen, water, rock, air, C, H, N, O etc.
B. Water, Soil, air, light, C, H, N, O etc.
C. Microorganisms, water, rock, air, C, H, N, O etc.
D. Autotrophs, water, rock, air, C, H, N, O etc.

9. The amount of fresh water on earth is about _____ % of total water.
- A. 28
B. 3
C. 71
D. 1.7
10. The humidity increases as the temperature _____.
- A. Increases
B. decreases
C. Changes
D. None of these
11. _____ is an example of biodegradable pollutant.
- A. Cattle dung
B. DDT
C. Plastic
D. Arsenic
12. _____ is the most abundant gas in the air.
- A. Argon
B. Oxygen
C. Carbon dioxide
D. Nitrogen
13. Methane is _____ gas.
- A. Asphyxiant
B. Odourous
C. Non pollutant
D. blue coloured
14. Radon gas is naturally occurring _____ gas.
- A. Noble radioactive
B. Noble non-radioactive
C. Noble odourous
D. Noble blue coloured
15. VOCs stand for _____.
- A. Voluminous Organic Compounds
B. Volatile Odourous Compounds
C. Volatile Organic Compounds
D. Volatile Organic Components
16. _____ are released from air conditioners, refrigerators, aerosol etc. and cause ozone depletion.
- A. Chlorofluorocarbons
B. Calcifluorocarbons
C. Carbon dioxide
D. NO_x
17. _____ in homes is composed of about 50% dead skin cells.
- A. Dust
B. Mist
C. Smog
D. Fog
18. _____ cause acid rain.

- A. SO₄ and NO₂
- B. CO₂ and CO
- C. NH₃ and CH₄
- D. H₂S and HCl

19. _____ is a naturally occurring greenhouse gas.

- A. Nitrogen
- B. Radon
- C. Carbon dioxide
- D. H₂S

20. _____ is a colorless, flammable, extremely hazardous gas with a “rot-ten egg” smell.

- A. SO₂
- B. H₂S
- C. Carbon dioxide
- D. Radon

21. The availability of food, water, shelter and space as well as competition for resources, predation and disease are all examples of

- A. limiting factors
- B. population dynamics
- C. environmental dynamics
- D. None of these

22. The Kyoto Protocol was an international treaty which extended the 1992 United Nations Framework Convention on Climate Change (UNFCCC) that commits state parties to reduce _____.

- A. greenhouse gas emissions
- B. Plastic
- C. Radiation
- D. Pesticides