

School of Science School:

BMS Program/s:

Semester: 3rd Year: 2nd

Examination: End Semester Examination

Examination year: December - 2022

Course Name: Ecology & Environment Biology Course Code: BM\$111

Total Marks: 40 Date: 07/12/2021 Total Pages: 03 Time: 11.30 am to 1.30 pm

Instructions:

→ All the Questions are Compulsory

→ Please read the questions carefully and answer accordingly

→ Draw a neat and labeled diagram wherever necessary.

Do as directed Q.1

1. Which of the following is the correct definition of 'Biodiversity'?

a) The variety of plant and animal life in the world or in a particular habitat, a high level of which is usually considered to be important and desirable.

- b) It encompasses the interaction of all living species. Climate, weather, and natural resources that affect human survival and economic activity.
- c) Both A & B
- d) None of the above
- 2. What is the main aim of Montreal Protocol?
 - a) Protection of Ozone Layer

c) Extinct species

b) Endangered Birds

d) Biodiversity conservation

(1x12=12)

- 3. Consider the following ecological factors:
 - 1. Precipitation
 - 2. Temperature
 - Sunlight

Which of the above determine the characteristics of various biomes? c) 2, 3 & 4 Only

a) 1,2 & 3 Only

b) 1,3 & 4 Only

d) 1, 2, 3 & 4

- Gas released during Bhopal tragedy was
 - a) methyl isocyanate

c) sodium isothiocyanate

b) potassium isothiocyanate

d) ethyl isothiocyanate

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5. Consider the following pollutants:	
 Nitrogen dioxide Sulphur dioxide 	
3. Carbon dioxide Which of the above is/are considered for calculating National Air Quality	
c) 1 & 2 Only	c) 2 & 3 Only d) 1, 2 & 3
d) 2 Only 6. The pyramid of energy is always upright" states that	
 The energy conversion efficiency of herbivores is better than carnivores The energy conversion efficiency of carnivores is better than herbivores Producers have the lowest energy conversion efficiency Energy conversion efficiency is the same in all trophic levels 	
7. Give full form of EIA.	
 8. Which of the following statements are correct regarding benthic organisms? 1. Benthic organisms live in the bottom of the water mass. 2. Practically every aquatic ecosystem has a well developed benthos. Select the correct option from the codes given below: 	
a) Only 1 b) Only 2 c) Both 1 & 2	d) Neither 1 & 2
 9. Which of the following statements are correct with respect to food chain? 1. A food chain starts with producers and ends with top carnivores. 2. The sequence of eaten and being eaten involves transfer of food energy from trophic level to another. 	
3. An ecosystem may consist of several interrelated food chains. Select the correct option from the codes given below: a) Only 1 & 2 b) Only 2 & 3 c) Only 1 & 3 d) 1, 2 & 3	
10. The upper part of an aquatic ecosystem contains	
a) Nekton b) Plankton c) Benthos	d) both (1) and (2)
11. Define 'carrying capacity'.	

12. Define 'ecological footprint'.

Answer in brief (Any 7) Q.2

(7*2=14)

- 1. What is the significance about Greta Thunberg's arguments on climate change?
- 2. If we completely remove the decomposers from an ecosystem, its functioning will be adversely affected. State true or false with justification.
- 3. How does species loss affect the extinction risk of the remaining species?
- 4. What is the importance of Bishnoi movement?
- 5. Why is the number of trophic levels in an ecosystem limited?
- 6. Availability of energy is less for entities at higher trophic levels. Why?
- 7. What makes oceans the least productive?
- 8.. What is the main reason for the decline in vulture population?
- What is Minnamata disease?

Write short notes on (Any 2) Q.3

(2x3=6)

- Desert Ecosystem
- 2. Environment issues due to smart city infrastructure
- 3. Principle of holocoenotic environment

Answer in detail (Any 2): 0.4

(2x4=8)

- 1. Describe the impact of at least three natural calamities on the environment.
- 2. What are the causes for ozone layer depletion? Give the harmful effects of the mentioned problem. Are the anthropogenic activities responsible for this environmental issue?
- 3. Explain the structure of the Ecosystem with the flowchart
