

## **CHAPTER 14 ECOSYSTEM**

### **VERY SHORT ANSWER QUESTIONS (1 marks each)**

- Q1 What is net primary productivity?  
Q2 List two factors that determine the vegetation and the soil type of an ecosystem.  
Q3 What are the starting point of a grazing food chain and detritus food chain respectively?  
Q4 What is meant by that the energy flow in ecosystem is unidirectional?  
Q5. Define food chain.  
Q6. Define trophic level.  
Q7. Expand PAR.  
Q8. Define primary production  
Q9. What is detritus?  
Q10. Name the important steps in the process of decomposition.  
Q11. What is meant by humification?  
Q12. How much of carbon is dissolved in oceans?  
Q13. Name one inverted pyramid of number.  
Q14. Name the trophic level occupied by  
a. secondary consumers  
b. tertiary consumers  
c. quaternary consumers  
Q15. What is meant by 10% law?  
Q16. Define climax community.  
Q17. Define mineralisation.  
Q18. What are primary carnivores?  
Q19. Why is a food web formed in nature?  
Q20. Mention any one similarity between hydrarch and xerarch successions.

### **SHORT ANSWER QUESTIONS (2 marks each)**

- Q1. Explain xerarch succession highlighting the xerarch communities.  
Q2. What is the primary productivity? how it is different from net primary productivity?  
Q3. List the three parameters used for constructing ecological pyramids.  
Q4. Why is the length of food chain generally limited to 3-4 trophic levels? explain with an example.  
Q5. Name the kind of organisms which constitute the pioneer community of xerarch and hydrarch succession respectively...  
Q6. What is stratification in an ecosystem? explain with an ecosystem.  
Q7. Why is secondary succession faster than primary succession?  
Q8. Name the four functional aspects of ecosystem.  
Q9. Construct a grazing food chain and detritus food chain using the following with 5 links each: earthworm, bird, snake, vulture, grass, grasshopper, frog, decaying plant matter.  
Q10. Due to uncontrolled excessive hunting the population of tiger in a forest becomes 0. Discuss the long term effects of this situation in the population of deer in that forest.

### **SHORT ANSWER QUESTIONS (3 marks each)**

- Q1 (a) What is meant by ecological succession? Explain how it occurs.  
(b) What properties distinguish a pioneer community from a climax community?  
Q2. Define ecological succession. Give four differences between seral stages and climax community during succession.  
Q3. What is primary productivity? In what units could you express productivity?  
b. Explain the differences between net primary productivity and gross primary productivity.  
Q4 Write difference between production and decomposition.  
Q5 Explain food chain and food web.  
Q6 Describe the components of ecosystem.  
Q7 Define ecological pyramids and describe with examples, pyramids of number and biomass.  
Q8 Give an account of energy flow in an ecosystem.

### **LONG ANSWER QUESTIONS (5 marks each)**

- Q1. What is ecological pyramid? Describe the different types of pyramids.  
Q2. In terrestrial ecosystem DFC and GFC are interlinked at certain level. Justify the statement.  
Q3 Write the important features of a Sedimentary cycle in an ecosystem.  
Q4 Explain salient features of carbon cycling in an ecosystem.  
Q5 Describe the four aspects of an ecosystem? Describe the energy flow in an ecosystem?

- Q6 What is ecological succession? What is climax community? How is climax community established?
- Q7 Explain Xerarch succession.
- Q8 What is decomposition. Write the factors affecting decomposition.