



12th Science : Biology
Ecosystems and Energy Flow,

DATE:

TIME: 1 hour

MARKS: 25

SEAT NO:

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Note:-

1. All Questions are compulsory.
2. Numbers on the right indicate full marks.

Section A

Q.1 Select and write the correct answer.

(4)

1. Which of the following utilizes inorganic materials?
A) Autotrophs B) Decomposers
C) Saprophytes D) Heterotroph
2. In establishing new ecosystem on rock, the pioneers are _____.
A) lichens B) phytoplanktons
C) trees D) animals
3. A lake ecosystem is _____.
A) artificial B) abiotic
C) natural D) hydrological
4. Which of the following is not a producer?
A) Spirogyra B) Agaricus
C) Volvox D) Nostoc

Q.2 Answer the following.

(3)

1. How will you classify man as carnivore (Primary/secondary) or omnivore? Why?
2. Name the components of ecosystem.
3. In ecosystem energy decreases as it passes from one trophic level to the next. Why?

Section B

Attempt any Four

- Q.3 The pyramid of biomass in sea is inverted. Give reason. **(2)**
- Q.4 What is eutrophication? How does it occur? **(2)**
- Q.5 What is trophic level? What is the maximum number of trophic levels in a food chain? **(2)**
- Q.6 What could be the reason for the low productivity of ocean? **(2)**
- Q.7 Gross primary productivity varies in different types of ecosystem. Give reason. **(2)**
- Q.8 Why is zonation more pronounced at the edge of habitat? **(2)**

Section C

Attempt any Two

- Q.9 Classify ecosystem giving example. **(3)**
- Q.10 What do you mean by structure and function of an ecosystem? **(3)**

Q.11 Describe the various stages in xerarch succession of plants. (3)

Section D
Attempt any One

Q.12 Define ecological pyramids and describe with examples, pyramids of number and biomass. (4)

Q.13 Define decomposition and describe the process and products of decomposition. (4)