



DELHI PUBLIC SCHOOL NEWTOWN
SESSION 2024-25
MONDAY TEST

CLASS: IX
SUBJECT: ENVIRONMENTAL SCIENCE

FULL MARKS: 40
DATE: 18.06.24

General Instructions:

- All questions are compulsory.
- Marks will be deducted for spelling errors.
- The paper consists of *three* printed pages.

SECTION A(20 Marks)

Question 1

[1×8=8]

- i. The teacher illustrated the flow of energy in this food chain
Grass---> Beetle---> Frog---> Snake---> Hawk
If there is 7 Kilojoules (KJ) of energy at the fourth trophic level, how much energy exists at the beginning of the food chain?
- a) 70000KJ
 - b) 7000KJ
 - c) 700KJ
 - d) 70KJ
- ii. Select the odd one out from the following
- a) Silicon
 - b) Zinc
 - c) Carbon
 - d) Selenium
- iii. The decomposers in ecosystem play a major role by
- a) Converting organic material to inorganic forms
 - b) Converting inorganic materials to simpler forms
 - c) Converting inorganic materials into organic compounds
 - d) Not converting any compounds
- iv. Assertion: Intraspecific competition is always more than interspecific.
Reason: All member of a species have different requirements of resources.
- a) Both the assertion and reason are true and the reason is the correct explanation of the assertion.
 - b) Both the assertion and reason are true and the reason is not the correct explanation of the assertion.
 - c) The assertion is true but the reason is false.
 - d) Both assertion and reason are false.
- v. The driving force of any ecosystem is
- a) Carbohydrates
 - b) Biomass
 - c) ATP
 - d) Solar energy

vi. Identify the interaction between species shown below



- a) Parasitism
- b) Predation
- c) Commensalism
- d) Mutualism

vii. The collection of individuals which belongs to the same species when live together in a region is called

- a) Keystone species
- b) Community
- c) Population
- d) Ecosystem

viii. Which statement is correct with respect to the food chain?

- a) Every component of the food chain forms a trophic level
- b) Inter-relation between different food chains is known as a food web
- c) All the chains formed by nutritional relations is used to understand energy flow
- d) All of the above

Question 2

[2×6=12]

- i. Differentiate between habitat and niche.
- ii. Mention *any two* ways by which India can achieve sustainable development.
- iii. Expand ODS. Give *any one* example of the same.
- iv. What is parasitism? Cite an example of an endoparasite.
- v. There are more autotrophs than herbivores in a healthy food web. Justify the statement.
- vi. State the Law of Limiting Factor. Mention *any one* limiting factor of a marine ecosystem.

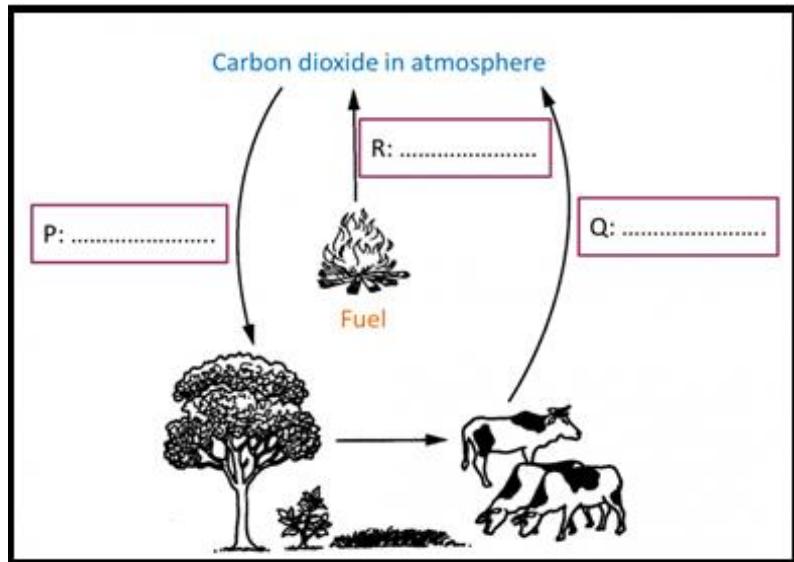
SECTION B (20 Marks)

Question 3

- a) Explain any five environmental problems that pose serious threat to our earth. [5]
- b) Write a short note on Mutualism citing *any two* examples. [5]

Question 4

- a) Explain the various dimensions for social sustainability as given by Nobel Laureate Amartya Sen. [5]
- b) Study the picture given below and answer the questions that follow. [5]



- i. Fill in the processes labeled as P, Q and R.
ii. State *any two* anthropogenic activities that disrupts the above cycle.