INDIAN SCHOOL AL WADI AL KABIR		
Class: VI	**DEPARTMENT: SCIENCE 2025-2026**	**DATE: 07/05/2025**
WORKSHEET NO: 2	**TOPIC: DIVERSITY IN THE LIVING WORLD**	**NOTE: A4 FILE FORMAT**
NAME OF THE STUDENT:	**CLASS & SEC:**	**ROLL NO.**

I. OBJECTIVE-TYPE QUESTIONS

1. Which of the following is a possible criterion for grouping plants?
a) Presence/Absence of flower
b) Hard/soft stem
c) Place where they grow
d) All the above

2. These are the characteristics of 3 different plants. What is the classification for each?

Name of the plant	Nature of stem	Height	Appearance of branches
Tomato	Green, Tender, Thin	Short	Close to the ground
Mango	Brown, Hard, Thick	Tall	Higher up on the stem
Rose	Brown, Hard, Thin	Medium	Close to the ground

a) Tomato-Herb, Mango-Tree, Rose-Shrub
b) Tomato-Tree, Mango- Shrub, Rose- Herb
c) Tomato-Shrub, Mango-Herb, Rose-Tree
d) Tomato-Shrub, Mango-Tree, Rose-Herb

3. What is the main characteristic of the plant shown in the picture?

a) Strong stem
b) Deep roots
c) Weak stem
d) Large leaves

4. If a plant has a taproot, what type of leaf venation and how many cotyledons does the plant have?
   a) Parallel venation, two cotyledons
   b) Reticulate venation, two cotyledons
   c) Parallel venation, one cotyledon
   d) Reticulate venation, one cotyledon

5. What is the main adaptation of trees in cold climates to withstand frequent snowfall?
   a) Conical shape and sloping branches
   b) Broad leaves
   c) Deep roots
   d) Thick bark

6. The two pictures depict Rhododendron in Nilgiris and Sikkim. Though the same plant, they look different in the two regions. Why?

a) Rhododendrons in Nilgiris are shorter to withstand heavy winds in the mountain region
b) Rhododendrons in Sikkim are shorter to withstand heavy winds in the mountain region
c) Both a and b
d) None of the above

7. What is the typical number of cotyledons in a dicot seed?
a) 1
b) 2
c) 3
d) 4

For the following questions, two statements are given- one labelled Assertion (A) and the other labelled Reason (R). Select the correct answer to these questions from the codes (i), (ii), (iii), and (iv) as given below:

i) Both A and R are true, and R is the correct explanation of the assertion.

ii) Both A and R are true, but ***R is not the correct explanation of the assertion.***

iii) A is true, but R is false.

iv) A is false, but R is true

8. **Assertion (A):** Rose plant is an herb.
Reason (R): Small plants with soft and green stems are called herbs.

9. **Assertion (A):** Taproots have reticulated venation, and Fibrous roots have parallel venation.
Reason (R): Taproots have one main root and small side roots arising from it. Fibrous roots have a bunch of similarly sized thin roots arising from the base.

10. **Assertion (A):** Fishes have streamlined bodies.
Reason (R): Streamlined bodies help fish move in the water.

II. VERY SHORT QUESTIONS (2M):

1. Define habitat. Give one example of a habitat.

[Hint: The place where plants and animals live is called their habitat. Terrestrial habitat, Aquatic habitat, etc.

2. Give reason: Camels in hot deserts have long legs with wide hooves, and camels in cold deserts have short legs.

[Hint: Long legs and wide hooves of camels in the hot desert help them to walk on the sandy desert without sinking into the sand. The short legs of camels in the cold desert allow them to walk easily in mountainous regions.

3. Differentiate monocotyledons and dicotyledons with examples.

[Hint: Plants that have seeds with two cotyledons are called dicotyledons. Example: Chickpea. Plants with only one cotyledon are called monocotyledons. Example: Maize]

4. Draw the diagrams of the taproot system and fibrous root system.

[Hint:

5. Define climbers and creepers.

[Hint: Plants with weak stems that need support to climb and grow are called climbers. Example: Grapevine. Plants that creep along the ground are called creepers. Example: Pumpkin]

6. What is venation? Mention the two types of venations seen in plants.

[Hint: The lines on the leaves of the plants are called veins. The pattern of veins on the leaf is called venation. The two types of venations seen in plants are called parallel venation and reticulate venation.]

III. SHORT ANSWER TYPE QUESTIONS: (3M)

1. What are the adaptations of camels living in a cold desert?

[Hint: 1. They have short legs to walk easily in the mountain region.

2. Camel in cold desert have two humps to store food which shrinks in winter when there is no much food available.

3. They grow long hair from head to neck, which helps them survive the cold winters.

2. Define herbs, shrubs, and trees.

[Hint: Plants with typically small with soft, and green stems are known as herbs. Example Tomato.

Plants that have many brown woody stems that start branching very close to the ground are called shrubs. Example: Rose plant.

Plants that grow tall and have hard, thick, brown, and woody stems. Their branches typically start higher up on the stem and away from the ground. These plants are called trees.]

3. What relation do you observe among leaf venation, root types, and the number of cotyledons in seeds of a plant?

[Hint: Dicot plants (Plants with two cotyledons) have reticulated venation and a taproot system, while monocot plants (plants with one cotyledon) have parallel venation and a fibrous root system]

4. Define adaptation. Why do cacti have thick and fleshy stems?

[Hint: The special features that enable plants and animals to survive in a particular region are called adaptations. Cacti are desert plants. The fleshy stem of the Cactus found in the desert can store water and help it tolerate the hot conditions in these places.]

5. What are the reasons for the loss of biodiversity? Why is it important to conserve our biodiversity?

[Hint: The damage to habitats of plants and animals results in loss of their homes, food, and other resources. This leads to the loss of biodiversity. We must protect biodiversity to ensure that our Earth is full of life, helping plants and animals to survive and thrive. Human beings, too, can survive only if there is biodiversity.]

IV. LONG ANSWER TYPE QUESTIONS. (5M):

1. a. Differentiate terrestrial and aquatic habitats with examples.

   b. What are amphibians? Give an example.

[Hint: a)

TERRESTRIAL HABITATS	AQUATIC HABITATS
1. The plants and animals that live on land are said to live in terrestrial habitats.	1. The plants and animals that live in water are said to live in aquatic habitats.
2. Some examples of terrestrial habitats are forests, deserts, grasslands, and mountains.	2. Some examples of aquatic habitats are ponds, lakes, rivers, and oceans.
3. Animals living in terrestrial habitat include camels, Lion, Tiger etc	3.Animals living in Aquatic habitat include Fish, Blue Whale etc

b) Animals that can live in water as well as on land are called amphibians. Example: Frog.

V. SOURCE-BASED/ CASE STUDY-BASED QUESTIONS:

Read the passage and answer the following questions.

A habitat is the natural environment in which a plant or animal species lives and thrives. It provides the necessary conditions for survival, including food, water, shelter, and space. Habitats can be found on land, in water, or even in the air, and they can range in size from a small patch of soil to an entire ecosystem. Different species have adapted to live in a wide range of habitats, from the freezing tundra to the hottest deserts, and from the deepest oceans to the highest mountains. Understanding habitats is crucial for conservation efforts, as it allows us to identify and protect the specific environments that support biodiversity.

i. What do habitats provide?

ii. Give two examples of habitats.

iii. Why is understanding habitats crucial for conservation efforts?

[Hint: i. Habitat provides the necessary conditions for survival, including food, water, shelter, and space.

ii. Habitats can be found on land, in water, or even in the air.

iii. Understanding habitats is crucial for conservation efforts, as it allows us to identify and protect the specific environments that support biodiversity.]

MCQ Answers

1-d,2-a,3-c,4-b,5-a,6-a,7-b,8-iv,9-ii,10-i

Prepared by: Ms Selina Liya Cherian	Checked by HoD Science