

**PARAGON CONVENT SCHOOL**

**SECTOR : 24 B, CHANDIGARH**

**LESSON - 8**

**ADAPTATIONS : HOW PLANTS SURVIVE**

**Summary:**

- Different plants are adapted to different types of environment.
- Terrestrial plants have different characteristics based on their region of growth such as deserts, mountain region, hot and humid region, plain region and marshy region.
- Floating, fixed and underwater plants are three types of aquatic plants.
- Some other adaptations in plants include - plants with thorns, plants with poison, insectivorous and non-green plants.

**Multiple Choice Questions (Page No. 62)**

1. (a)      2. (c)      3. (a)

**Multiple Choice Questions (Page No. 63-64)**

1. (b)      2. (a)      3. (a)

**EXERCISES**

**Section A**

**Oral Questions**

Q1.- Why do you think only mangroves plants can grow in marshy areas?

Ans.- Only mangrove plants can grow in marshy areas because only they have breathing roots.

Q2.- How does lotus remain afloat?

Ans.- A lotus has hollow and light stem that keeps the leaves and the flower afloat.

Q3.- Why do some plants have thorns on their bodies?

Ans.- Some plants have thorns on their bodies to protect them from animals.

### **Science Quiz**

Q1.- Name a desert plant.

Ans.- Cactus / Babool / Keekar / Date palm

Q2.- Where can pine and fir tree grow well?

Ans.- In mountain regions

Q3.- Name a plant in which stem prepares and stores food.

Ans.- Cactus

### **Worksheet**

#### **Multiple Choice Questions**

1. (c)

2. (a)

#### **Circle the odd ones. Give reason for your choice**

1. Pine

Pistia

Lotus

Ans.- Pine - Others are aquatic plants, whereas pine is found in mountain region.

2. Sundew

Water hyacinth

Pitcher plant

Ans.- Water hyacinth - Others are insectivorous plants, whereas water hyacinth is an aquatic plant.

3. Teak

Wolffia

Rubber tree

Ans.- Wolffia - Others grow in hot and humid region, whereas Wolffia is an aquatic plant.

#### **Fill in the blanks with the help of the given words.**

1. dry

2. Cactus

3. marshes

4. aquatic

5. floating

**Identify the following plants. Write their names in the spaces provided.**

1. Water hyacinth

2. Water lily

3. Pepper

**Section B**

**Multiple Choice Questions**

1. (a)

2. (b)

**Very short answer questions**

Q1.- Name a carnivorous plant.

Ans.- Pitcher plant / Sundew / Venus flytrap

Q2.- Name a saprophytic plant.

Ans.- Coral root / Indian pipe

Q3.- Name any two plants that grow in hot and humid regions.

Ans.- Teak / rubber / pepper / coffee / tea / sugar cane

Q4.- Name two plants that grow in water.

Ans.-Water hyacinth / lotus / water lily

**Short answer questions**

Q1.- What is a desert?

Ans.- A hot and dry place is called a desert.

Q2.- What happens when we touch a poison ivy plant?

Ans.- When we touch a poison ivy plant, our skin starts itching.

Q3.- The roots of mangroves plants grow out of the soil to breathe and thus, adjust to the marshy region they grow in.

a) Which type of soil is found in marshy places?

b) What value do we learn from plants that adapt to their environment?

Ans.- (a) Marshy places have sticky and clayey soil.

(b) We learn to adapt ourselves in all types of conditions and environment.

Q4.- Why do we not found a mango plant on mountains?

Ans.- Mango plants are not found on mountains because it is adapted to grow only in plain regions where it is neither too cold nor too hot.

Q5.- Give two adaptations in plants that grow in water.

Ans.- Adaptations in plants that grow in water are -

(i) They have light and spongy bodies.

(ii) Their leaves have thin waxy coating that prevents them from rotting.

(iii) Stems are small and roots are not developed.

### **Long answer questions**

Q1.- How does a desert plant adapt itself in desert conditions?

Ans.- A desert plant adapts itself in desert in following ways:

(i) Leaves are changed into spines which prevent water loss.

(ii) Stems are green and have chlorophyll. They make food and also store food and water.

(iii) Roots spread deep under the ground in search of water.

Q2.- Discuss the features of plants that grow in plains.

Ans.- The features of plants that grow in plain regions are -

(i) They have many branches that spread around.

(ii) Their branches have many flat and thin leaves which help in evaporating excess water, keeping them cool.

(iii) Most of the trees can survive in very hot climate and mostly shed their leaves in autumn. New leaves grow again in spring.

Q3.- What difference do you find in terrestrial and aquatic plants?

Ans.-

<b><u>Terrestrial plants</u></b>	<b><u>Aquatic plants</u></b>
<p>1. They grow on land.</p> <p>2. They need moderate or very less water to grow.</p> <p>3. Except xerophytes, leaves do not have waxy coating</p> <p>4. They have stomata.</p> <p>5. They have well-developed roots.</p> <p>E.g., cactus, fir tree, mango, banyan</p>	<p>1. They grow in water.</p> <p>2. They need lots of water to grow.</p> <p>3. Leaves have waxy coating..</p> <p>4. Some plants do not have stomata.</p> <p>5. Their roots are not well-developed.</p> <p>E.g., lotus, water lily, seaweed</p>