

## ANSWERS

### CHAPTER 9-LIFE IN TEMPERATE GRASSLANDS

**1. Choose the correct option:**

- |                       |                           |
|-----------------------|---------------------------|
| (a) (iii) Mississippi | (b) (iv) American Buffalo |
| (c) (iii) Sweetveld   | (d) (ii) Kudu             |
| (e) (i) Diamond mines | (f) (iv) Grass            |
| (g) (i) Maize         |                           |

**2. Fill in the blanks.**

- |              |                               |            |
|--------------|-------------------------------|------------|
| (a) Prairies | (b) Kimberley                 | (c) Canada |
| (d) Chinook  | (e) Orange and Limpopo rivers |            |

**3. Match the columns.**

- |     |   |       |
|-----|---|-------|
| (a) | — | (v)   |
| (b) | — | (iv)  |
| (c) | — | (vi)  |
| (d) | — | (i)   |
| (e) | — | (vii) |
| (f) | — | (iii) |
| (g) | — | (ii)  |

**4. Differentiate between the following:**

- (a) The temperate grasslands found in North America are known as Prairies. The prairies cover parts of United States of America and parts of Canada. In the USA, the area is drained by the river Mississippi and its tributaries. In Canada, prairies are drained by the tributaries of Saskatchewan Rivers. Prairies are bounded by the Rocky Mountains on its west and lakes in east. Prairies have extreme kind of climate with hot summers and cold winters.

The temperate grasslands of South Africa are called the Velds. The eastern side of Velds has the Drakensburg Mountains, and the western side has Kalahari Desert. The tributaries flowing

through this grassland are Orange and Limpopo rivers. The climate of the Veld is mild, which is greatly influenced by the Indian Ocean. Acacia and Maroola are found in the high Velds. Red grass is another variety of grass which is found in fertile areas of Velds, which have low rainfall.

- (b) Prairies are located in the middle of the continent. Therefore, they receive a sheltering effect from the Rocky Mountains. At the same time, since they are not too close to the ocean, they have an extreme kind of climate. The summers are warm with temperatures of around 20°C whereas in winters, the temperature even drops to -20°C in some areas. During winters, the entire area of grasslands seems to be covered with a blanket of snow. On the other hand, there is a long dry period during the summer months. The rainfall is moderate. Strong winds blow across the endless plains during both summer and winter. The local winds which blow during the winter season is known as "Chinook".

The climate of the Veld is mild and is greatly influenced by the Indian Ocean. It has mild winters from the month of May to September and hot summers from November to March. You will be surprised to know that July is the coldest month in this region. Sunshine is abundant. Rains mostly occurs in summers when warm ocean currents move towards land.

**5. Put a (✓) mark if the statement is correct and (x) if incorrect.**

- (a) (X)      (b) (✓)      (c) (✓)      (d) (X)      (e) (✓)

**6. Identify the picture given below and answer the questions.**

- (i) Kudu  
Velds
- (ii) Marino sheep  
Sheep rearing
- (iii) Canada  
Wheat

#### **9. Short answer questions.**

- (a) The temperate grasslands found in North America are known as Prairies. The prairies cover parts of United States of America and parts of Canada. In USA, the area is drained by the river Mississippi and its tributaries.
- (b) Strong winds blow across the endless plains during both summer and winter. The local wind which blows during the winter season is known as 'Chinook'. The wind has been named after the Chinook people who lived near the oceans. Hence, Chinook refers to the warm wind from the ocean into the interior regions. A strong Chinook can make one foot deep snow almost vanish in one day. These winds raise the temperature of the area in a short time. This results in melting of the snow. This becomes a relief for the cattle grazers as they get some area available for grazing their animals.
- (c) Some plants are able to survive harsh winter season because of their unique root structure and thick stem base.
- (d) The prairies are also known as the "Granaries of the world". This is because they are greatest wheat producers. Canada is the world's sixth-largest producer and one of the largest exporters of wheat, producing over 25 million tonnes annually and exporting about 19 million tonnes.

Areas of temperate grasslands where rainfall is less, grasses are very short. Hence, these areas are suitable only for ranching. Ranching is a practice of raising livestock such as cattle or sheep for meat or wool. Ranching is common here as sufficient and suitable grasses for feeding herbivores is available.

#### **10. Long answer questions.**

- (a) The people of Prairies are very hard working. They are mainly involved in farming, running milk dairies and making milk products. Areas of temperate grasslands where rainfall is less, grasses are very short. Hence, these areas are suitable only for ranching. Ranching is a practice of raising livestock such as

cattle or sheep for meat or wool. Ranching is common here as sufficient and suitable grasses for feeding herbivores is available here. The leaves and stems of grasses decay after they die and produce rich humus. This helps to create excellent agricultural lands so that cereals like wheat can be grown.

In the velds where land is fertile people grow crops. Some of the crops which are grown here are: maize, wheat, barley, oats and potatoes. Besides this, some cash crops like tobacco, sugarcane and cotton are also grown. Sheep rearing is a common practice in velds. The sheep is bred for wool, specifically. Merino sheep is a variety of sheep which is regarded for some of the finest and softest wool. Besides this, dairy farming is also an occupation of people living in velds. Milk products such as butter and cheese are prepared both for local consumption as well as for exports. Mining is also one of the major occupations of people living in these regions. Velds have some rich reserves of minerals such as coal, iron, gold and diamonds. Johannesburg is known as the gold capital of the world. Kimberley in South Africa is famous for its diamond mines.

- (b) Grasslands are areas where the natural vegetation is dominated by grasses. They are found where there is not enough regular rainfall to support the growth of a forest but not so little as to form a desert. They are generally open and fairly flat, and they exist in every continent except Antarctica. Antarctica is too cold to support any kind of vegetation. About one-quarter of the Earth's land is covered with grasslands. They are known by distinct names in different parts of the world. For example: In the U.S. Midwest, they are known as 'Prairies'. In South America, they are called 'Pampas'. Central Eurasian grasslands are referred to as 'Steppes', while in Africa, they are named 'Savannas'. There are two different kinds of grasslands: one which occurs in tropical regions of the world and the other which occurs in the temperate regions.

### **Temperate grasslands of North America**

The temperate grasslands found in North America are known as Prairies. The pioneers who first saw this, named it "prairie", derived from a Latin word which means 'meadow for grazing'. The prairies are a type of grassland, which is dominated by herbaceous plants and grasses. Very few trees grow on the prairies and are usually widely scattered. They cover about 1.4 million square miles. The prairies cover parts of United States of America and parts of Canada. In USA, the area is drained by the river Mississippi and its tributaries. In Canada, prairies are drained by the tributaries of Saskatchewan Rivers. The prairies are bound by the Rocky Mountains on its west and lakes in east. Prairies are a huge area of land, which was once covered with grasses and colorful wild flowers. Today, only 1% of the original prairie land remains while 99% of prairies are gone.

#### **Climate**

Since prairies are located in the middle of the continent, they receive a sheltering effect from the Rocky Mountains. At the same time, since they are not too close to the ocean, they have an extreme kind of climate. The summers are warm with temperatures of around 20°C whereas in winters, the temperature even drops to -20°C in some areas. During winters, the entire area of grasslands is covered with a blanket of snow. On the other hand, there is a long dry period during the summer months. The rainfall is moderate. Strong winds blow across the endless plains during both summer and winter. The local wind which blows during the winter season is known as "Chinook". A strong Chinook can make one foot deep snow almost vanish in one day. These winds raise the temperature of the area in a short time, which helps in melting the snow. This helps the cattle grazers as they get some area available for grazing their animals.

#### **Flora and Fauna**

Prairies are dominated by grasses whereas trees are practically absent. Areas which receive rainfall of about 50-80 cms, have fertile land. Hence, it is cleared and used for farming. Much of



the North American prairie lands have been converted into one of the richest agricultural regions on Earth. Maize is the major crop grown here. Besides this, soya bean, alpha-alpha and potatoes are also commonly grown here. When the rainy season arrives, many areas of grassland become flourished with flowers. Some of these are even able to survive harsh winter season. This is because their unique root structure and thick stem base. Some roots die each year and decompose, adding lots of organic matter to the soil. This is the reason why the soil of prairies is so fertile. Fires are very common in grasslands. Some fires are set by people to clear off a land piece, and sometimes it is a natural fire. Many types of grasses are able to survive forest fires because they grow from the bottom, so even if the top part is burnt out, they can continue to grow again.

The animals that live in temperate grasslands have adapted to the dry, windy conditions. Many kinds of grazing animals are found here like Buffalo, Elk, Gazelle and deer. Burrowing animals such as Prairie dogs, mice and jack rabbits are also common. The North American grasslands were once home to millions of bison, before most of them were slaughtered by humans.

### **People**

The people of Prairies are very hard working. They are mainly involved in farming, running milk dairies and making milk products. Areas of temperate grasslands where rainfall is very less, grasses are very short. Hence, these areas are suitable only for ranching. Ranching is a practice of raising livestock such as cattle or sheep for meat or wool. Ranching is common here as sufficient and suitable grasses for feeding herbivores is available here. The leaves and stems of grasses decay after they die and produce rich humus. This helps to create excellent agricultural lands so that cereals like wheat can be grown.

### **Temperate Grasslands of South Africa -VELDS**

The temperate grasslands of South Africa are called the 'Velds'. The word 'veld' comes from a word which literally meaning 'field'. Veld appears like fields of varying heights. It ranges from 600 metres

to 1100 metres. At some places velds can be even 1600 metres in height. Pick up a physical map of Africa and locate velds. On the eastern side of velds, lies the Drakensburg mountains and the western side has the Kalahari desert. The tributaries flowing through this grassland are Orange and Limpopo rivers.

### **Climate**

The climate of the veld is mild and is greatly influenced by the Indian Ocean. It has mild winters from the month of May to September and hot summers from November to March. July is the coldest month in this region. Sunshine is abundant. Rains mostly occur in summers when warm ocean currents move towards land.

### **Flora and Fauna**

The flora or the plant life is very limited. Grasses dominate this area, although variety of grasses may be found at different heights. For example: Acacia and Maroola are found in the high velds. Red grass is another variety of grass, which is found in fertile areas of velds which have low rainfall. Since this grass tastes sweet, it is also known as Sweetveld. The fauna or the animal life of velds consists of lions, leopards, cheetah and kudu. Kudu belongs to the antelope family and are recognized by the stripes that they have on their body.

### **People**

In velds where land is fertile people grow crops. Some of the crops which are grown here are: maize, wheat, barley, oats and potatoes. Besides this, some cash crops like tobacco, sugarcane and cotton are also grown. Sheep rearing is a common practice in velds. The sheep is bred for wool, specifically. Merino sheep is a variety of sheep which is regarded for some of the finest and softest wool. Besides this, dairy farming is also an occupation of people living in velds. Milk products such as butter and cheese are prepared both for local consumption as well as for exports. Mining is also one of the major occupations of people living in these regions. Velds have some rich reserves of minerals such as coal, iron, gold and diamonds. Johannesburg is known as the gold capital of the world. Kimberley in South Africa is famous for its diamond mines.