

North America Climate, Natural Vegetation, Wildlife; Mineral and Power Resources

EXERCISES

A. Fill in the blanks with the correct answer.

1. The northern parts of North America are **colder** than the southern parts.
2. The **South Westerlies** cause rain throughout the year along the north – west coast in the northern part of North America.
3. The **Alaskan Current** warms the Alaskan Coast and keeps it frost-free in winter.
4. The tropical regions mainly experience rainfall in the **summer** season.
5. The prairies are a vast stretch of **tall** grasses.

B. Match the following

A	B
1. tundra	(i) hardwood and softwood trees
2. coniferous trees	(ii) bison
3. prairies	(iii) softwood trees
4. mixed forests	(iv) cactus, lizards, and scorpions
5. deciduous trees	(v) monkeys and reptiles
6. mediterranean vegetation	(vi) mosses and lichens
7. desert	(vii) hardwood trees
8. tropical rainforests	(viii) olive and citrus fruit trees

Answer:

A	B
1. tundra	(v) monkeys and reptiles
2. coniferous trees	(iii) softwood trees
3. prairies	(ii) bison
4. mixed forests	(i) hardwood and softwood trees
5. deciduous trees	(vii) hardwood trees
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7. desert	(iv) cactus, lizards, and scorpions
8. tropical rainforests	(vi) mosses and lichens

C. Select the appropriate term from the list given below to fill in the blank after each statement

- the prairies
- chaparral
- the taiga
- the tundra
- Mediterranean climate

1. An extremely cold region which is treeless, **the tundra.**
2. A vast stretch of coniferous forests in the cool temperate latitudes, **the taiga.**
3. The only climate in North America which gets winter rain. **Mediterranean climate.**
4. Grasslands where the bison are nearing extinction. **The Prairies.**
5. The scrub-like vegetation found in coastal California. **Chaparral.**

D. Differentiate between each of the following pairs.

Question 1.

Cool temperate east coast and west coast climates

Answer:

Cool temperate east coast:

1. The cool temperate East coast experiences milder summer and winter due to the influence of the oceans.
2. The region receives abundant rainfall throughout the year, which is more than that received in the cool temperate climatic region.

West coast climates:

1. The cool temperate west coast type experiences summer warms and dry while winters are mild and wet.
2. Receive abundant rainfall throughout the year brought by the Westerly winds.

Question 2.

Warm temperate west coast and east coast climates.

Answer:

Temperate west coast :

This climate type is found just south of the cool temperate west coast climatic region, along a narrow belt on the west coast in California.

- Here, summers are warm and dry, while winters are mild and wet.
- The region comes under the influence of the Westerlies in winter.

East coast climates:

- In this climatic region, summers are warm and winters are mild. Rainfall occurs all year round, but mostly in summer brought by the North-East. Trade Winds blowing

from the Atlantic Ocean. The rainfall gradually decreases westwards. The south-eastern part of the continent and the coastal areas around the Gulf of Mexico in the USA experience this type of climate.

Question 3.

Deciduous and coniferous vegetation.

Answer:

Differences between deciduous and coniferous vegetation

Deciduous :

1. They have broad leaves.
2. All trees of one species shed their leaves once a year in the dry season so trees are bare for some time.
3. They yield hardwood.
4. They have wide trunks with wide spread branches at the top.

Coniferous:

1. They have needle – like leaves.
2. The trees do not shed their leaves in any particular season so the forests appear green at all times.
3. They yield softwood.
4. They have tall, slender trunks, wider at the base and tapering at the top.

E. Answer the following questions in brief.

Question 1.

How does the latitudinal extent of North America affect its climate?

Answer:

North America lies within the temperate zone. Some parts in the north of the continent lie in the frigid zone. So the northern part of the continent is colder than the southern part.

Question 2.

Identify the winds that bring summer rainfall and winter rainfall to North America.

Answer:

North-East Trade Winds and South Westerlies bring rainfall in North America. The North-East Trade Winds bring heavy rainfall to the east coast and southern parts of North America during summer. The South Westerlies, coming from the Pacific Ocean, bring rain throughout the year to places in the north-west of North America and winter rain to places in south-west North America.

Question 3.

Why does the Alaskan Coast remain frost-free in the winter season?

Answer:

The Gulf Stream in the south-east and the Alaskan Current in the north-west are warm currents. The coastal parts of Alaska are frost-free even in winter because of the Alaskan Current.

Question 4.

Which areas of North America experience the cool temperate or mid-latitude continental type of climate? Name the type of natural vegetation found here.

Answer:

The interior of North America in the middle latitudes. The southern part of central Canada and the northern part of central USA experience this climate which is characterized by warm summers and cool and cold winters. This region receives moderate rainfall in summer and snow in winter.

The natural vegetation of this region is adapted to withstand the drought conditions. The cork oak, olive, Mediterranean pine, laurel, and cedar are the trees found in this region. Fruit trees such as orange, peach, apricot, lemon, and walnut thrive.

Question 5.

Bring out the difference between the wildlife of the tropical and taiga forests of North America.

Answer:

The tropical regions of Central America have hardwood vegetation consisting mainly of mahogany, palms, rubber, and cocoa trees. These forests are dense and large animals are rare. Instead a variety of birds, monkeys, insects, and reptiles thrive in these forests.

Question 6.

Name the areas of important coal deposits in North America.

Answer:

Coal is mainly found in the Appalachians and is of the high grade bituminous and anthracite variety. Northeastern Pennsylvania, Kentucky, Illinois, and West Virginia are some important coal producing centres. Large deposits of coal are also found in the Rockies of Colorado, Wyoming, and Montana.

F. Answer the following questions in one or two paragraphs.

Question 1.

How do the mountain ranges affect the climate of North America?

Answer:

In North America, both the Western Cordilleras and the Eastern Highlands extend in a north-south direction parallel to the coast. Thus, in winter, the cold winds from the tundra region can easily reach the interior of the continent as there is no east-west range to block it.

Likewise, in summer, the warm winds from the torrid zone raise the temperature of places situated in the temperate latitudes. The direction of the mountain ranges also

cuts off the interior central plains from the maritime influence of the Pacific and Atlantic Oceans.

Question 2.

Write about the climatic characteristics of the hot desert type of climate in North America.

Answer:

The desert climate is mainly found in northern Mexico and in the south-west of the USA. Where the influence of the rain-bearing Westerlies and the North-East Trade Winds is not felt, a dry climate with very hot summers and little or no rainfall is experienced.

Question 3.

The vegetation of North America is closely related to the climatic conditions. Explain this statement and give examples from any two regions.

Answer:

The great variety of climates has resulted in a great variety of vegetation in North America—tropical forests in Central America, desert vegetation in Mexico and southern USA, Mediterranean vegetation along the Californian Coast, coniferous forests in Canada, and tundra vegetation in the areas of Arctic climate.

Question 4.

Where are the prairies situated? What are the major human activities in this region?

Answer:

The prairies are the natural vegetation of the interior parts of North America in the cool temperate latitudes. Very little summer rainfall can support only the rich, tall grasses, which occur in vast stretches. Cattle rearing is, therefore, the main occupation here. But at several places, the grass has been replaced by wheat farms, another major occupation of the region.

Question 5.

Describe the climate and vegetation of the Mediterranean climate region of North America.

Answer:

The west coast of North America, especially the Californian Coast, experiences hot dry summers and cool wet winters. So, the natural vegetation of this region is adapted to withstand the drought conditions. The cork oak, olive, Mediterranean pine, laurel, and cedar are the trees found in this region. Fruit trees such as orange, peach, apricot, lemon, and walnut thrive. Fruit orchards have replaced much of the original scrub-like vegetation called chaparral.

Question 6.

What is natural gas? What are its uses?

Answer:

Natural gas is a mixture of hydrocarbons such as methane, ethane, and propane. It is

usually found together with petroleum in the same region. It is an important fuel and is used for lighting, heating and generating electricity for industrial and domestic use. Nowadays natural gas is transported by pipelines and in special tankers or barges as liquefied natural gas.

Question 7.

North America has vast water power resources. Explain.

Answer:

North America also has vast water power resources. Large dams have been constructed across rivers such as the Columbia, the Tennessee and the Colorado to produce hydroelectric power. Many power projects have also been developed in the Appalachian and the Rocky Mountains. The Niagara Falls provide water power to both Canada and the USA.

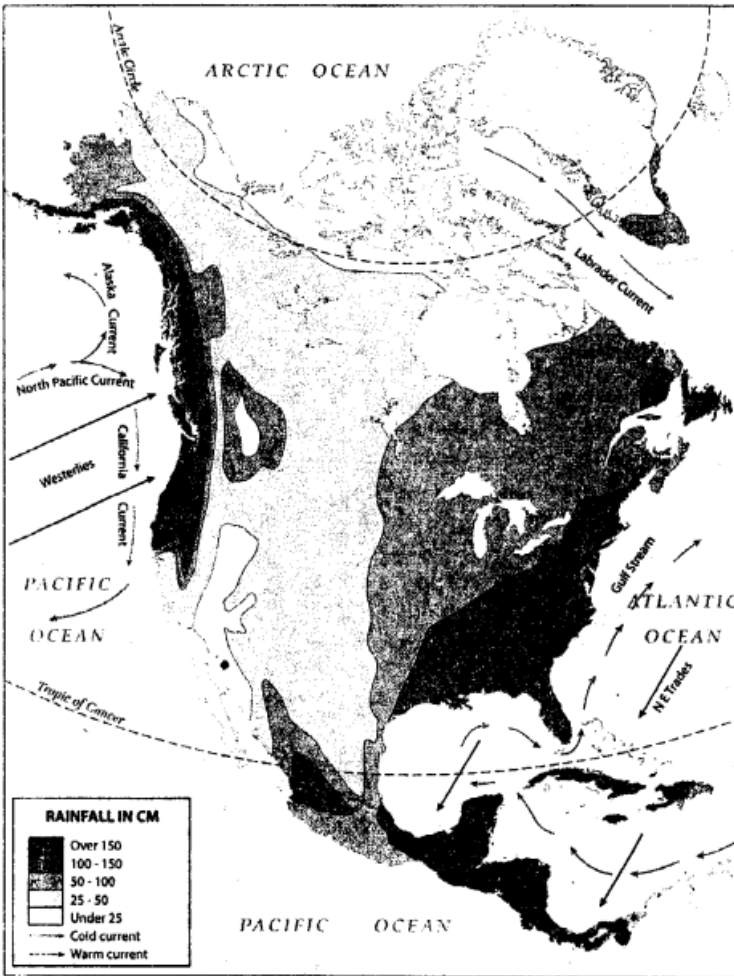
G Map work.

On a blank outline map of North America, do as directed

Question 1.

Show with black arrows the North-East Trade Winds and the South Westerlies.

Answer:



Question 2.

Use red arrows to show the warm ocean currents and blue arrows to show the cold currents that wash the shores of North America in the east and the west.

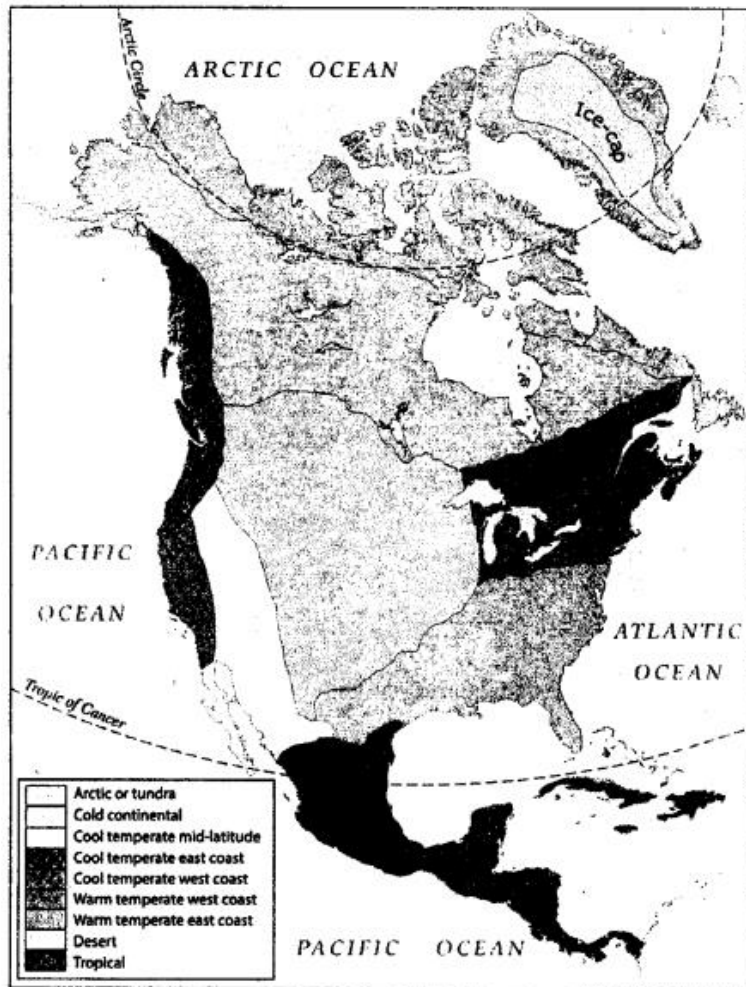
Answer:

See answer Q.1. above

Question 3.

Make a key and show with different colours the different climates found in North America.

Answer:



Question 4.

In each of the above climatic regions write the name/ names of the tree species that thrive there.

Answer:

1. Arctic or tundra – Mosses, lichens grasses and dwarf bushes.
2. Cold – Continental
3. Cool temperate mid-latitude
4. Cool temperate East Coast
5. Cool temperate West Coast
6. Warm temperate West Coast
7. Warm temperate East Coast
8. **Desert** : Saguaro (against cactus), coarse grass and creosote brushes.
9. **Tropical** : Mahogany, palms, rubber and coca trees.

H. Picture study.

1. This is a photograph of the coniferous forests in North America.



Question 1.

Where in North America is this variety of trees found?

Answer:

California

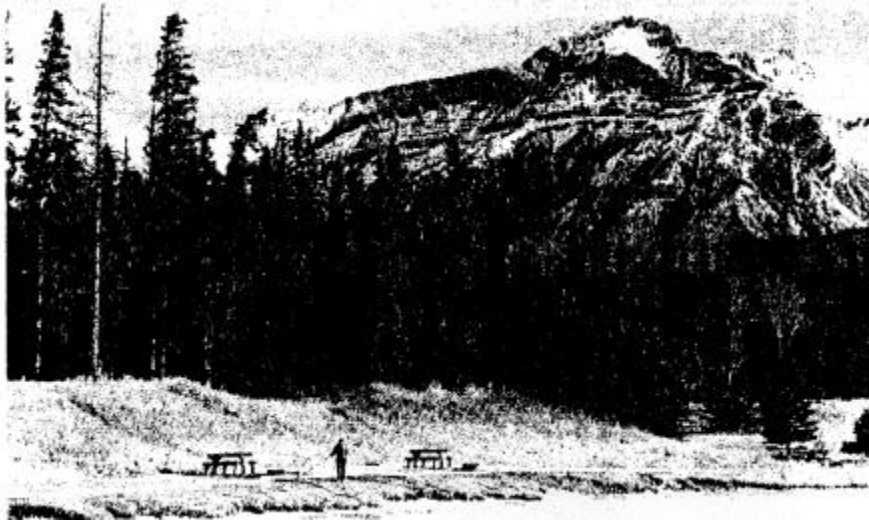
Question 2.

How do the animals of this region protect themselves from extreme temperatures?

Answer:

The animals of the region also have thick fur to protect them from extreme cold. Some animals hibernate or sleep all through winters. The thick layers of fat under their skin proves useful during this period.

2. This is a photograph of a famous waterfall in North America.



Question 1.

Name the waterfall seen in the picture.

Answer:

Niagara falls

Question 2.

Which countries get hydroelectricity from this waterfall?

Answer:

Canada and USA