

# **3**

# **Chapter**

# **LAND AND ENVIRONMENT**



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## LOCATION OF PAKISTAN

### LONG QUESTIONS

**Q.1 Describe the location of Pakistan and its significance.**

(Ex. Q No: 1)(U.B+K.B)

**Ans:** LOCATION OF PAKISTAN

#### Introduction:

Pakistan is situated in the continent of Asia. It is an important country of South Asia. The total area of Pakistan is 796096 square kilometers, which is 0.67% of the total area of the world. About 58% of the total land of Pakistan consists of mountains and plateaus, while about 42% area is covered by plains and deserts.

#### Geographical Features:

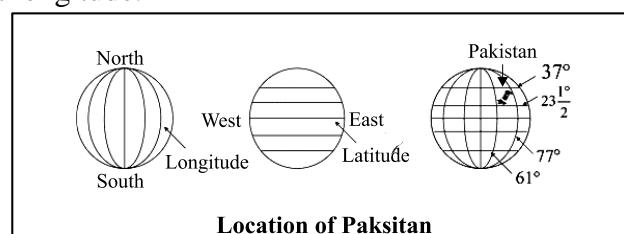
Pakistan is a vast and spacious country stretching from the coast of the Arabian Sea near Indus river delta to the lofty mountain ranges in the north. The south eastern region of Pakistan is covered by the river plains, while the western and central region consists of several mountain ranges. That is why there is significant seasonal difference in Pakistan climate.

#### Physical Environment:

Pakistan is a fortunate country, in the sense, that Almighty Allah has blessed it with a conducive environment the physical environment effect deeply on the economic, social, cultural and other activities of the people of a country. The physical environment refers to location, relief features and climate.

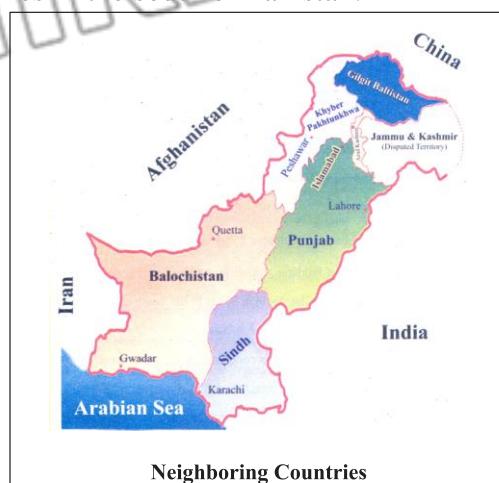
#### Location of Pakistan:

Geographically, Pakistan is located between 24° to 37° degrees North Latitude and 61° to 77° degrees East longitude.



The neighboring countries of Pakistan are as follows:

- India lies in the east of Pakistan.
- China lies in the North of Pakistan.
- Afghanistan lies in the North-west.
- Iran lies in the west.
- The Arabian Sea lies in the south of Pakistan.



### **IMPORTANCE OF THE LOCATION**

Pakistan has a special significance in the world due to its location, because Pakistan is an important means of communication between East and West. The importance of Pakistan's location is given below:

#### **China:**

Pakistan has China in its north, which is emerging as a major economic power on the world map. China has stood by Pakistan through thick and thin. Pakistan is proud of China's friendship. China is working on several developmental projects in Pakistan, including the China Pakistan Economic Corridor (CPEC). These projects are further strengthening the industrial, economic and social relations between the two countries and new doors are opening up for the development and prosperity of this region. Pak-China friendship is matchless.

#### **Central Asian Islamic Countries:**

Pakistan has the Central Asian Islamic countries (Kazakhstan, Uzbekistan, Tajikistan, Turkmenistan and Kyrgyzstan) in the north west. These countries are land locked and rich in natural resources. Pakistan has religious, cultural and economic relations with these Islamic countries. Pakistan is the only country that provides the nearest sea route and transport facilities to Central Asian Republics.

#### **Afghanistan:**

To the west of Pakistan are Afghanistan. The adjoining border with Afghanistan is almost **2250km** which is called Durand line. Durand line was marked by ruler of Afghanistan Ameer Abdul Rahman and British secretary of foreign Affairs for India Sir Durand in **1893**. Pakistan has religious and cultural bonding with these countries.

#### **Iran:**

To west of Pakistan are Iran. Pakistan has brotherly, ideological and religious relation with Iran. The adjoining border between Pakistan and Iran called Iran Barrier. The length of Pak Iran border is 909 km.

#### **India:**

Pakistan has India in the East. There are tensions between Pakistan and India on Jammu and Kashmir and some other issues, but after the settlement of these issues there are bright prospects of cooperation between them.

#### **Gulf States:**

Pakistan has the Arabian Sea in the south, which is a part of the Indian Ocean. Trade between the East and the West is mostly through the Indian Ocean. Therefore, being on an important trade route, Pakistan has a great significance. Pakistan is connected to the Muslim countries bordering the Persian Gulf via the Arabian Sea. All these Gulf countries are rich in oil. Due to the Persian Gulf, the Indian Ocean has always been the focus of attention among the major powers. Karachi, Bin Qasim and Gwadar are the main seaports of Pakistan.

#### **Other countries:**

In addition Pakistan has cordial relations with many countries through the Indian Ocean. These include South-East Asian Muslim countries (Indonesia, Malaysia, and Brunei Dar-us-salaam) and South Asian Muslim countries (Bangladesh, Maldives) and Sri Lanka.

#### **Conclusion:**

The fact is that Pakistan is located in the neighborhood of China and Russia, the great powers of the world, in case of peace or war, Pakistan is of great importance in terms of world politics as a neighbor of these great powers. Most of the world's trade is from the Arabian Sea and Pakistan is with it. That is why it has become the focus of attention of the great powers.

**SHORT QUESTIONS****Q.1 What is the total area of Pakistan?**

(K.B)

**Ans:****AREA OF PAKISTAN**

Pakistan is situated in the continent of Asia. It is an important country of South Asia. The total area of Pakistan is 796096 square kilometers, which is 0.67% of the total area of the world.

**Q.2 What is meant by physical environment?**

(U.B+K.B)

**Ans:****DEFINITION OF PHYSICAL ENVIRONMENT**

Physical environment refers to our location, physical characteristics and climate. Environment the physical environment impinges deeply on the economic, social, cultural and other activities of the people of a country.

**Q.3 Describe the location of Pakistan?**

(U.B+K.B)

**Ans:****LOCATION OF PAKISTAN**

Geographically, Pakistan is located between 24° to 37° degrees North Latitude and 61° to 77° degrees East longitude.

- India lies in the east of Pakistan
- China lies in the north of Pakistan
- Afghanistan lies in the northwest of Pakistan
- Iran lies in the west of Pakistan
- In the south of Pakistan is Arabian Sea

**Q.4 Explain the importance of Central Asian Islamic countries for Pakistan?**

(U.B+K.B)

**Ans:****CENTRAL ASIAN ISLAMIC STATE**

Pakistan has the Central Asian Islamic countries (Kazakhstan, Uzbekistan, Tajikistan, Turkmenistan and Kyrgyzstan) in the North West. These countries are land locked and rich in natural resources. Pakistan has religious, cultural and economic relations with these Islamic countries. Pakistan is the only country that provides the nearest sea route and transport facilities to Central Asian Republics.

**Q.5 What is meant by Durand Line?**

(K.B+A.B)

**Ans:****DURAND LINE**

Afghanistan is located in the northwest of Pakistan. Pakistan has fraternal relations with Afghanistan. The border with Afghanistan is called the Durand Line. Its length is 2250 km. Its borders were determined by the British government and the Afghan king.

**Q.6 What is the cause of tension between Pakistan and India?**

(U.B+K.B)

**Ans:****PAK-INDIA TENSION**

Pakistan has India in the East. There are tensions between Pakistan and India on Jammu and Kashmir and some other issues, but after the settlement of these issues there are bright prospects of cooperation between them.

**Q.7 Write the names of Pakistan's major sea ports?**

(K.B)

**Ans:****IMPORTANT SEA PORTS**

The major sea ports of Pakistan are as follows:

- Karachi                    • Port Qasim                    • Gwadar

**Q.8 What do you know about Pakistan's relations with Persian Gulf states?**

(U.B+K.B)

**Ans:****THE PERSIAN GULF**

Trade between the West and the East is mostly through the Indian Ocean. In this sense, being on an important trade route, Pakistan is very important. Pakistan is connected to the Muslim countries bordering the Persian Gulf via the Arabian Sea. All these Gulf countries are rich in oil. Due to the Persian Gulf, the Indian Ocean has always been the focus of attention among the major powers.

**MULTIPLE CHOICE QUESTIONS****1. Pakistan is located in:**

(K.B)

- (A) North Asia              (B) South Asia              (C) East Asia              (D) West Asia

**2. The total area of Pakistan is:**

(K.B)

- (A) 796096 sq km           (B) 796996 sq km           (C) 796069 sq km           (D) 769096 sq km

**3. Pakistan's total area is a percentage of the world's total area:**

(K.B)

- (A) 0.63                    (B) 0.65                    (C) 0.66                    (D) 0.67

4. What percentage of Pakistan is covered by mountains and plateaus? (K.B)  
 (A) 58% (B) 57% (C) 56% (D) 55%
5. Pakistan consists of plains and deserts: (K.B)  
 (A) 41% (B) 42% (C) 43% (D) 45%
6. In terms of geographical location, Pakistan is spread between the northern latitudes: (K.B)  
 (A) 21° to 23° (B) 23° to 37° (C) 30° to 40° (D) 24° to 37°
7. In terms of geographical location, Pakistan is located in the middle of the longitude of the East: (K.B)  
 (A) 61° to 77° (B) 77° to 80° (C) 30° to 50° (D) 62° to 68°
8. In the north of Pakistan is: (K.B)  
 (A) India (B) Afghanistan (C) Iran (D) China
9. In the west of Pakistan are: (K.B)  
 (A) Afghanistan and Iran (B) Afghanistan and India  
 (C) Iran and China (D) Afghanistan and the Arabian Sea
10. In the east of Pakistan is: (K.B)  
 (A) China (B) India (C) Iran (D) Afghanistan
11. In the south of Pakistan is: (K.B)  
 (A) Arctic Ocean (B) Pacific Ocean (C) Atlantic Ocean (D) Arabian Sea
12. The Economic Corridor Plan (CPEC) is between: (K.B)  
 (A) Pakistan and India (B) China and India  
 (C) China and Pakistan (D) China and Afghanistan
13. The border with Afghanistan is called: (K.B)  
 (A) Line of Control (B) International Border (C) Wall Berlin (D) Durand Line

### (PHYSICAL FEATURES OF PAKISTAN)

#### LONG QUESTIONS

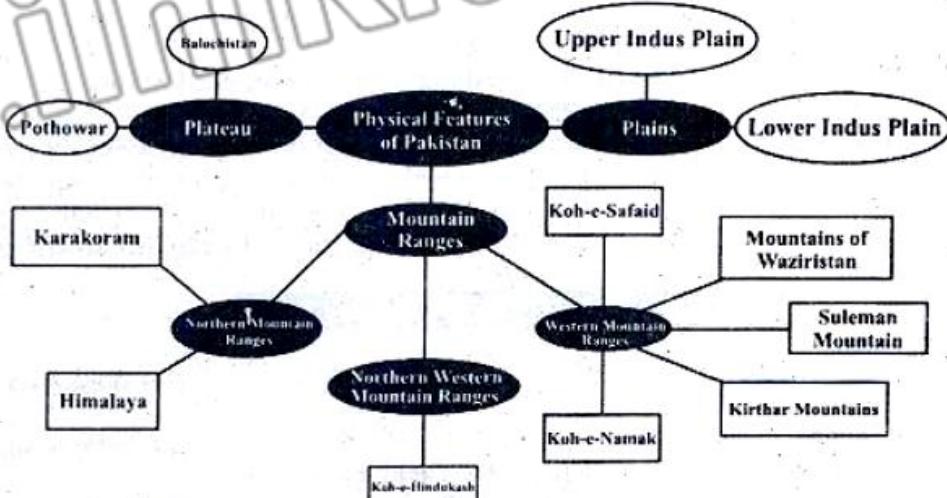
- Q.1 Explain the physical characteristics of Pakistan. (K.B)  
 (The answer to this question is on pages 160 to 167 in which it is necessary for the student to explain the mountain ranges, plains and plateaus) (Ex. Q No: 2)

Ans: PHYSICAL FEATURES OF PAKISTAN

#### Introduction:

Pakistan is a vast country with plains, plateaus and vast mountain ranges. About 58% of Pakistan's land area consists of mountains and plateaus while 42% of its area is spread over plains and deserts. Is divided into three major parts:

- Mountain ranges
- Plains
- Plateaus



**Q.2 Describe the mountain ranges of Pakistan.**

(K.B)

**Ans:** MOUNTAIN RANGES

**Mountain:**

The part of the earth that is higher than the surface of the earth, has sloping sides around it, with rocky and uneven surface, is called a mountain.

Pakistan has world's highest Mountain Ranges. There division is as follow:

**Division of Mountain Ranges:**

Pakistan has the highest mountain ranges in the world. Their distribution is as follows:

- Northern mountain ranges
- Northwest mountain range
- Western mountain ranges

**(i) NORTHERN MOUNTAIN RANGES**

The Himalayas and the Karakoram Mountains are located in this mountain range. The details of which are given below:

**Karakoram Range:**

**Location:**

This mountain is located in the north of Pakistan. The average height of Mount Karakoram is about 7,000 meters. The rugged peaks of this mountain are covered with snow all around year.

**Highest Peak:**

The world's second highest mountain peak K2 is located in the same mountain range that is 8,611 meters above sea level.

**Rivers and Valleys:**

The world's highest mountain passes, Khanjarab and Shandor, are located in the Karakoram Mountains. The Hunza and Gilgit valleys are beautiful valleys. Before the summer season begins, there is a wave of life in these valleys.

**Karakoram Highway:**

This mountain range is located between Pakistan and China. Also known as the Silk Road, such as the Karakoram Highway, its construction has greatly benefited both countries in trade and tourism. This highway leads to China via the Khanjarab Pass.

**Himalayan Range:**

**Location:**

Great Himalayan mountain range located south of Mount Karakoram. The Himalayas stretch from north to south in Southeast Asia, from east to west. Pakistan is located in the western part of the Himalayas. Its average elevation ranges from 1000 meters to 6500 meters.

**Highest Peak:**

Nanga Parbat is the highest peak of this mountain range in Pakistan with an elevation of about 8,126 meters above sea level.

**Kashmir Valley:**

The world's most beautiful valleys are located in this mountain range, of which the Kashmir Valley is important. The Himalayas rise from south to north. These mountains are rich in natural flora, especially evergreen forests.

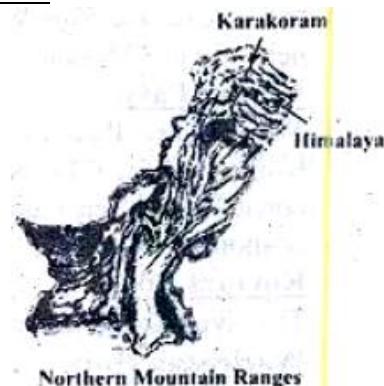
**(ii) NORTH WESTERN MOUNTAIN RANGE**

The Hindu Kush is the most important mountain range in the northwestern part of Pakistan.

**Hindukush Range:**

**Location:**

The Hindukush range is located in the North Western part of Pakistan stretching from North to South. This Mountain extends from Pamir plateau to River Kabul. This Mountain range is mostly located in Afghanistan.



**Highest Peak:**

The highest peak of the Hindu Kush mountain range is Trichmir which is about 7690 meters high. Between these mountains is the Lawari Pass, and the "Lawari Tunnel" continues to run from Chitral and other parts of the country via Peshawar.

**Valleys:**

The beautiful valleys of Chitral, Swat and Dir are located in this mountain. The Swat River, the Panch Kura Chitral River irrigate these valleys.

(iii) **WESTERN MOUNTAIN RANGES****Koh-e-Sufaid:****Location:**

Koh-e-Sufaid lies to the South of River Kabul and is spread in East West directions. The average height of this Mountain range is 3600 m.

**Khyber Pass:**

The Khyber Pass is also located north of the Koh-e-Sufaid. The Khyber Pass is a historic corridor between Pakistan and Afghanistan that is about 53 km long.

**Kurram River:**

The river Karam flows south of the Koh-e-Sufaid.

**Waziristan Hills:****Location:**

The mountains of Kohat and Waziristan are located south of the Koh-e-Sufaid. These are different hill ranges.

**Important Passes:**

The main valleys of Waziristan are Karam, Tochi and Gomal.

**Passages:**

Located between the Kurram and Gomal rivers, this mountain range stretches from north to south. Another important river in this range is the Tochi. The valleys of these rivers are important trade routes between Pakistan and Afghanistan.

**Toba Kakar:**

To the south of the Waziristan hills lies the Toba Kakar range, bordering Afghanistan. Which runs from northeast to southwest and ends north of Quetta.

**Koh-e-Suleiman:****Location:**

Mount Suleiman stretches from north to south in the south of the Waziristan hills. This mountain is located in the middle of Pakistan. To the south of Mount Solomon are the hills of Bugti and Murree.

**Highest Peak:**

The highest peak of Mount Suleiman is Takht-e-Suleiman, which is about 3443 meters above sea level.

**Pass and River:**

The Bolan River is the main river of this range and the Bolan Valley is located in this mountain range.

**Kirthar Hills:****Location:**

The Kirthar Hills are located west of the Indus River, along the border of Sindh Province and Baluchistan, south of Mount Suleiman. These hills extend from north to south. These are low and dry hills with a maximum height of about 2150 meters.



**Rivers:**

Mount Kirthar is located west of the lower Indus plain. The major rivers of the region are Hub and Lyari. These rivers flow from Carthage to the Arabian Sea.

**Salt Range:****Location:**

Mount Salt is located south of Pothwar Plateau, between the Jhelum River and the Indus River. The Jhelum River is located east of the Salt Mountains. The average height of a salt mountain is about 700 meters. But at the site of the sakisar, its height is about 1500 meters. This is a beautiful place in this series.

**Main deposits:**

Salt Mountain is rich in natural resources. Salt, gypsum and coal deposits are abundant in this mountain range.

**Famous River:**

The most famous and largest river in the area is the Soan.

## PLAIN AREAS

### LONG QUESTIONS

**Q.1 Write a detail note on the plains of Pakistan.**

(U.B+K.B)

**Ans:** THE PLAINS OF PAKISTAN

**Definition:**

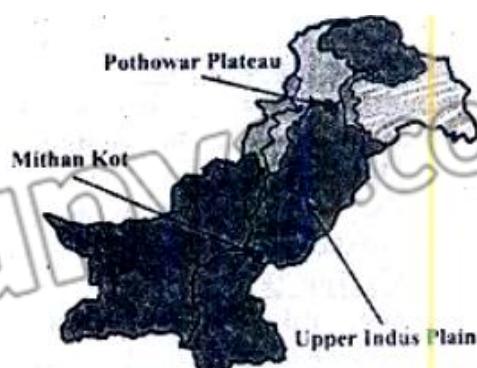
A wide, low-slope and relatively smooth surface is called a plain. About 80% of the world's population is found in the plains.

The Indus River plains are very important in Pakistan. These plains are made of soil brought from the Indus River and its tributaries Jhelum, Chenab, Ravi and Sutlej. The Indus River has two main plains, the details of which are given below:

- The Upper Indus Plain
- The Lower Indus Plain

**Upper Indus River Plain:****Location:**

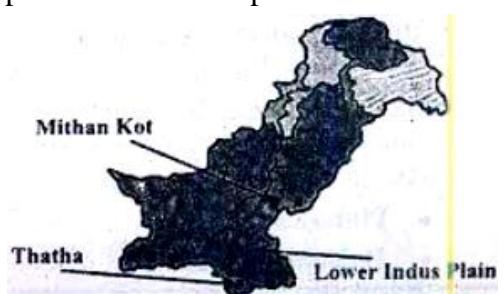
The Plain of river Indus is composed of the soil brought by the river Indus and its tributaries Jhelum, Chenab, Ravi and Sutlej. In Pakistan the plain area of the Punjab province, is called upper Indus plain. It is named Punjab because five rivers namely Indus, Jhelum, Chenab, Ravi and Sutlej irrigate it.

**Importance of the Upper Indus Plain:**

River Indus is the most important and the longest river of Pakistan. Upper Indus plain is almost level and is made up of soil deposited by the rivers. Therefore, the soil is very fertile. The shortage of rainfall is met with artificial sources of irrigation like tube wells and canal water. Immediate and essential irrigation produces better crops.

**Lower Indus River Plain****Location:**

Below Mithankot, the Indus River flows alone in the form of a large river to Thatta. This whole area is called the lower plain of the Indus River. To its south-west lies Mount Kirthar. To the southeast is the Thar Desert.



**Lower Plain Texture:**

The lower reaches of the Indus are flat and have low slopes. In addition, the deltaic area of the Indus River stretches from Thatta to the Arabian Sea. Here its speed slows down and before falling into the sea, the river divides into several branches and forms a delta. The region is called delta of Indus River. Only the Indus River irrigates this plain.

**The Importance of the Lower Plain:**

Like the upper field, the lower plain of Sindh is also very fertile. It is well known for its early vegetable and fruit production. Water scarcity and water logging and salinity are major agricultural problems in the field.

**Irrigation:**

The lower reaches of the Indus are irrigated mostly by the Indus. In addition, irrigation is mostly done from canals. But there is a shortage of canal water to which tube wells have been installed.

The plains also include coastal plains and deserts, the details of which are given below:

**Location:**

The coast of Pakistan is about 1050 meters long. This coastline starts from the border of India in the province of Sindh in the east and extends along the coast to the border of Iran in the west.

**Main Seaports:**

The coastal plain consists of small and large seaports of which Karachi is the most important. The other major seaports are Port Qasim, Gwadar and Pasni.

**Industry:**

The fishing industry is developing in these areas. Therefore, this coastal area has become a center of important economic activities.

**DESERTS****Definition:**

The area that receive less than 10 inches rainfall annually is called desert.

**Location:**

The southeastern part of Pakistan has a desert characteristic. It is spread over a wide area. The area includes Bahawalpur, Sukkur, Khairpur, Sanghar, Mirpur Khas and Tharparkar districts.

**Cholistan or Thar:**

In Bahawalpur, this desert is called Cholistan or Rohi, while in Sindh it is called Thar. Most areas are uninhabited.

**Thal Desert:**

The second desert of Pakistan is Thal. This desert is located between the Jhelum River and the Indus River. This area is mostly uninhabited.

**Kharan Desert:**

The third desert region of Pakistan is located in the northwest of Baluchistan province called Kharan Desert. It also includes some Chaghi area.

**PLATEAUS****LONG QUESTIONS**

**Q.I** Write a detail note on the Plateau of Pakistan.

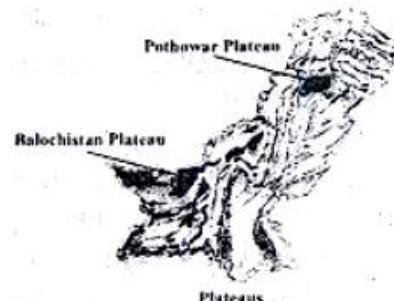
**Ans:** THE PLATEAU OF PAKISTAN

(SGD 2017) (U.B+K.B)

**Definition:**

"Plateau" refers to the surface of the earth which has ups and downs, mountain ranges, plains and river valleys. There are mountain ranges somewhere. Some plains and some river valleys are located on the plateau. Pakistan has the following two plateaus:

- Pothowar plateau
- Baluchistan plateau



**POTHOWAR PLATEAU**

The main features of the plateau are as follows:

**Location:**

The surface of the Pothowar Plateau is very rugged. The Kala Chitta and Margalla Hills to the north of the Pothowar Plateau, the Kohistan Salt to the south, the Jhelum River to the east and the Indus River to the west. Up to 600 meters high.

**Soan Valley:**

The main river here is the Soan River which forms its valley here which is called Soan Valley.

**Main deposits:**

The Pothwar Plateau has vast reserves of lime, coal and mineral oil. Pakistan meets some of its mineral oil needs from here.

**BALUCHISTAN PLATEAU****Location:**

The plateau of Baluchistan is located west of Mount Suleiman and the Kirthar mountain range. To the north of this plateau are the mountain ranges of Koh-e-Chaghi and Toba Kakar. This plateau is up to 900 meters high.

**Desert Features:**

The plateau of Baluchistan is uneven and barren. Rainfall is very low here so this area has desert features.

**Main Lakes:**

In the western pan of Baluchistan province, there are saltwater lakes, the most famous of which is Lake Hamun-e-Mashkhel.

**Main River:**

The main plateau rivers are Gomal, Zhob and 1 lingol.

**Main Deposits:**

The plateau of Baluchistan has vast reserves of coal, copper, crude oil, marble, granite, gold, oil and gas.

**SHORT QUESTIONS**

**Q.1 In terms of physical nature, Pakistan is divided into how many parts? (U.B+K.B)**

**Ans: PHYSICAL FEATURES**

In terms of physical features, Pakistan is divided into three major parts:

- Mountain ranges
- Plains
- Plateaus

**Q.2 What is meant by mountain? (U.B+K.B)**

**Ans: MOUNTAIN**

The part of the earth that rises above the surface of the earth and has a steep slope around it, the surface is rocky and uneven, is called a mountain.

**Q.3 How many mountain ranges in Pakistan? (K.B)**

**Ans: MOUNTAIN RANGES OF PAKISTAN**

Pakistan has the highest mountain ranges in the world. These mountain ranges are as follows:

- Northern mountain ranges
- Northwest mountain range
- Western mountain ranges

**Q.4 Which is the second highest mountain peak in the world? (K.B)**

**Ans: THE SECOND HIGHEST PEAK**

K-2 is world's second highest mountain peak. It is located in the Karakoram mountain range. It is about 8611 meters above sea level.

**Q.5 What do you know about Karakoram Highway? (U.B+K.B)**

**Ans: KARAKORAM HIGHWAY**

The Karakoram Range is located between Pakistan and China. Pakistan's Silk Road, also known as the Karakoram Highway, passes through this line and leads to China via the Khanjrab Pass. The construction of the Karakoram Highway has greatly benefited both countries in trade and tourism.

**Q.6 Write the names of the Himalayan mountain ranges?**

(U.B+K.B)

**Ans:** THE HIMALAYAN MOUNTAIN RANGES

The Himalayas have the following mountain ranges:

- Siwalik Hills
- Lesser Himalayan Mountain
- Greater Himalayan Mountain

**Q.7 What is the highest peak in the Himalayan Range?**

(K.B)

**Ans:** NANGA PARBAT

Nanga Parbat is the highest peak in the Himalayan mountain range in Pakistan with an elevation of about 8126 meters above sea level.

**Q.8 What is the highest peak of the world and where is it located?**

(K.B)

**Ans:** THE HIGHEST PEAK

Mount Everest is the highest peak of the world. It is 8848 meters high and is located in Nepal.

**Q.9 What is the highest peak of Hindukush?**

(K.B)

**Ans:** TIRCH MIR

The highest peak of the Hindu Kush mountain range is Trich Mir. The height of Trich Mir is about 7690 meters.

**Q.10 Tochi Pass and Gomal Pass are located in which mountain range?**

(K.B)

**Ans:** TOCHI PASS AND GOMAL PASS

Tochi Pass and Gomal Pass are located in the mountains of Waziristan in the western mountain ranges of Pakistan.

**Q.11 Describe the location of the salt mountain.**

(U.B+K.B)

**Ans:** SALT MOUNTAIN

Mount Salt is located south of Pothwar Plateau. To the east of the Salt Mountain is the Jhelum River. The average height of the Salt Mountain is about 700 meters. At the site of Skaisar, the height of Mount Salt is about 1500 meters. The famous and largest river in the area is the Sun.

**Q.12 What is meant by plain?**

(U.B+K.B)

**Ans:** PLAIN

A wide, low-slope and relatively smooth surface is called a plain. About 80% of the world's population is found in the plains.

**Q.13 How many plains are there in Pakistan?**

(K.B)

**Ans:** THE PLAINS OF PAKISTAN

The Indus River in Pakistan is made up of soil brought from the Indus and its tributaries, the Indus, Jhelum, Chenab, Ravi and Sutlej. There are two main plains of the Indus River as follows:

- The upper Indus plain
- The lower Indus plain

**Q.14 Describe the location of the upper Indus plain.**

(U.B+K.B)

**Ans:** THE UPPER INDUS PLAIN

The plains of Punjab province in Pakistan is called the upper plain of the Indus River, which is called the land of Punjab, meaning "Panj Ab", due to the irrigation of the five rivers Indus, Jhelum, Chenab, Sutlej and Ravi. The upper plain of the Indus River extends from the south of the Pothwar Plateau in the province of Punjab to Mithankot. If we base Mithankot, all the rivers of Punjab meet at the site of the Panjnad. The whole area will be called the upper plain of the Indus River. The field is almost flat. And the soil brought by the rivers is made, so the soil is very fertile.

**Q.15 Describe the location of the lower Indus plain.**

(U.B+K.B)

**Ans:** THE LOWER INDUS PLAIN

The lower plains of the Indus are flat and have low slopes. Below Mithankot, the Indus River flows alone to Thatta, from where it divides into a delta and flows into the Arabian Sea. This whole area is called the Lower Plain of Daya Sindh. Only the Indus River irrigates this plain. The lower reaches of the Indus River are very important in terms of agriculture.



- 8. Which part of the Himalayas is located in Pakistan?** (K.B)  
 (A) East                    (B) North                    (C) South  
 (D) West
- 9. The average height of the Himalayas ranges:** (K.B)  
 (A) 5000 m                (B) 6000 m                (C) 6200  
 (D) 6500 m
- 10. The height of Nanga Parbat is:** (K.B)  
 (A) 7690 m                (B) 8126 m                (C) 8792 m  
 (D) 9490 m
- 11. Most of the Hindu Kush is located:** (K.B)  
 (A) In India                (B) In Afghanistan        (C) In Pakistan  
 (D) In China
- 12. The highest peak of Koh-e-Hindu Kush is:** (K.B)  
 (A) Takht-e-Suleiman     (B) Mount Salt            (C) Pamir  
 (D) Tirch Mir
- 13. The height of Tirch Mir is almost:** (K.B)  
 (A) 7680 m                (B) 7690 m                (C) 8000 m  
 (D) 8160 m
- 14. The height of Koh-e-Sufaid is about:** (K.B)  
 (A) 3600 m                (B) 3700 m                (C) 3800 m  
 (D) 3900 m
- 15. The length of Khyber Pass is:** (K.B)  
 (A) 50 km                 (B) 51 km                 (C) 52 m  
 (D) 53 km
- 16. Koh-e-Suleiman's highest peak is:** (K.B)  
 (A) Takht-e-Suleiman    (B) Throne of Pamir      (C) Pir Panjal  
 (D) Koh-e-Namak
- 17. Mount Suleiman has an average elevation above sea level:** (K.B)  
 (A) 31440 m              (B) 3460 m                (C) 3443 m  
 (D) 40404 m
- 18. The main river in the Suleiman Range is:** (K.B)  
 (A) Indus River            (B) Bolan River            (C) Zhob River  
 (D) Dasht River
- 19. The maximum height of Kirthar is:** (K.B)  
 (A) 2150 m                (B) 2250 m                (C) 2350 m  
 (D) 2440 m
- 20. The average height of Mount Salt is about:** (K.B)  
 (A) 600 m                 (B) 670 m                 (C) 700 m  
 (D) 800 m
- 21. Pakistan's largest and most important river is:** (K.B)  
 (A) Indus River            (B) Jhelum River          (C) Chenab River  
 (D) Sutlej River
- 22. About \_\_\_\_\_ of the world's population lives in the plains:** (K.B)  
 (A) 70%                    (B) 80%                    (C) 60%  
 (D) 50%
- 23. The deltaic region of the Indus begins from:** (K.B)  
 (A) Thatta                 (B) Layyah                 (C) Lodhran  
 (D) Mithankot
- 24. The coast of Pakistan is almost long:** (K.B)  
 (A) 1000 km               (B) 1060 km               (C) 1040 m  
 (D) 1050 km
- 25. Pakistan's most important seaport is:** (K.B)  
 (A) Lahore                 (B) Peshawar               (C) Multan  
 (D) Karachi
- 26. Plateau is the highest plateau in the world which is also called:** (K.B)  
 (A) The top of the world                                    (B) The house of the world  
 (C) The earth of the world                                (D) The roof of the world
- 27. The Pothwar plateau is above sea level:** (K.B)  
 (A) 200 to 400 in          (B) 250 to 450 m        (C) 300 to 500 m  
 (D) 300 to 600 m
- 28. The main river of the Pothwar Plateau is:** (K.B)  
 (A) Jhelum River            (B) Swan River            (C) Hub River                (D) Indus River
- 29. The height of Baluchistan plateau is:** (K.B)  
 (A) 900 m                 (B) 800 m                 (C) 700 m  
 (D) 600 m
- 30. Baluchistan Province's famous and large lake is:** (K.B)  
 (A) Shandoor               (B) Saif al-Muluk  
 (C) Hamun-e-Mashkhel    (D) Satpara

## CLIMATE OF PAKISTAN

### LONG QUESTIONS

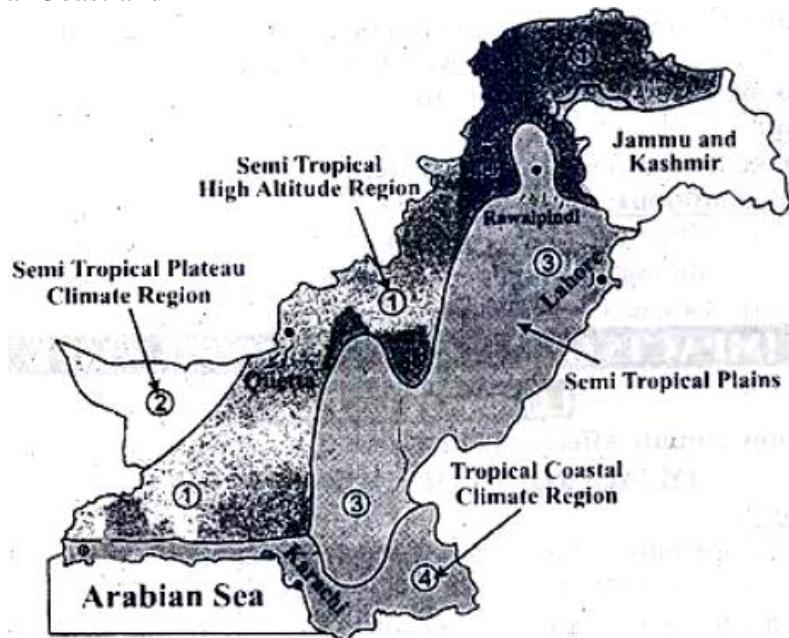
- Q.1** In how many climatic regions is Pakistan divided? Write down the detail of each region and elaborate how climate affects the human life. (Ex. Q No: 3) (U.B+K.B)

**Ans:** CLIMATIC REGIONS OF PAKISTAN

#### Definition of Climate:

“The long-term study of weather conditions of any country or area is called climate.” The weather conditions include temperature, rainfall, air pressure, rain and humidity, and so on. Pakistan is divided into the following regions in terms of climate:

- Sub-Tropical Continental Highland
- Sub-Tropical Continental Plateau
- Sub-Tropical Continental Lowland
- Tropical Coastland



**Climatic Regions of Pakistan**

#### SUB-TROPICAL CONTINENTAL HIGHLAND

The location and climatic conditions of the region are as follows:

##### **Location:**

This climate zone includes the following areas of Pakistan:

- Northern Highlands (Outer, Central Himalayas)
- Northwest mountain ranges (Chitral, Swat and Dir etc.)
- Western Mountain Range (Waziristan, Zhob and Loralai)
- The mountain ranges of Baluchistan (Quetta, Sarawan, Central Makran and Jaliwan) are included.

##### **Seasonal conditions:**

Here the winter is extremely cold and normally there is snow fall. Summer season is quite cool while in spring season there is rainfall. In some areas of this region such as outer Himalayas. Muree and Hazra districts, rainfall continues almost throughout the year. But mostly the rain falls at the end of the Summer season.

#### SUB-TROPICAL CONTINENTAL PLATEAU

The location and climatic conditions of the region are as follows:

##### **Location:**

This climate region covers most of Baluchistan. Sibi and Jacobabad are located in the same region.

**Seasonal conditions:**

Hot and dusty winds continue to blow in these areas from May to mid-September. There is some rain in January and February. Extremely hot and dry weather as well as dust storms are the main features of this region.

**SUB-TROPICAL CONTINENTAL LOWLAND**

The location and climatic conditions of the region are as follows:

**Location:**

This climatic region includes the upper Indus River (Punjab Province) and the lower plain (Sindh Province).

**Seasonal conditions:**

The climate of this region has higher temperatures in summer. At the end of summer, monsoon winds cause more rainfall in North Punjab while less rainfall in the plains. The same is true of rain in winter. The Thai and the southeastern deserts are the driest areas, with very little rainfall. The plains of Peshawar experience strong winds, rain and storms. Dust storms are common in Peshawar during the summer season.

**TROPICAL COASTLAND**

The location and climatic conditions of the region are as follows:

**Location:**

The climate letter covers the coastal areas of Sindh and Baluchistan.

**Seasonal conditions:**

There is very little difference between the annual and daily temperature. Winds blow from the sea during the summer. Humidity is high in the air. The average annual temperature is about 32 degrees Celsius. May and June are the warmest months.

**IMPACT OF CLIMATE ON HUMAN LIFE**

**Q.1 Explain how climate effects the human life.**

(Ex. Q No: 3) (U.B+K.B)

**Ans:**

**IMPACT OF CLIMATE ON HUMAN LIFE****Introduction:**

Climate impact the human life considerably. It impact all the human activities of a place or an area. The economic, social, cultural and political activities of the people of any country depend to a great extent on climate. The dress, living, food etc., of the people of cold areas are different from the people of hot areas. Similarly, all other activities of trade and commerce also differ.

**CLIMATICAL EFFECTS ON HUMAN LIFE IN THE NORTH AND NORTHWEST AREAS****Areas above sea level:**

The northern and north western areas of Pakistan are surrounded by mountain Ranges. These areas are thousands of meters high above sea level. The temperature decreases with increase in height.

**Effects of winter season**

The temperature of the hilly areas in winter is extremely low and falls below freezing point ( $0^{\circ}\text{C}$ ) and mostly there is snowfall. The activities of all the people living here are almost limited in winter. People store food and other necessary items to meet the needs of the winter season. Home crafts are very important in people's activities. Some people shift their cattle, sheep, goats etc. from highlands to the lowland areas because all the grazing fields get covered with snow.

**Effects of summer seasons:**

These areas become green in the Summer season. The drains and rivulets start flowing when snow melts and the people of these areas go back to their lands with their belongings and livestock. During Summer, farming is an important occupation of the people of these areas. Different types of fruits grow in this area, therefore, the economic and commercial activities start again.

**Characteristics of Mountainous Areas:**

Hilly areas are relatively less populated. Mineral resources are also found in these areas. The people of these areas are hardworking and energetic. The climate is relatively good, so tourism has progressed a lot.

**CLIMATICAL EFFECTS ON HUMAN LIFE IN THE PLAIN AREAS**

The climate of plains of Pakistan is extreme, that is Summer is very hot and Winter is very cold. This climate is quite suitable for different kinds of crops, vegetables and fruits. As the plain areas are made of soil brought from rivers, therefore, they are very fertile.

**Climate effects:**

Climate has a profound effect on people's way of life, food and clothing. The income of the people living in these areas is largely dependent on agriculture and allied industries. The economic situation of the people living here is relatively better. The lack of rainfall in the plains has been met through artificial irrigation systems.

**Characteristics of Plain Areas:**

These areas are densely populated. Pakistan has maximum population in these areas. The means of transportation and communication are relatively better, and the people have all the facilities of life.

**CLIMATE EFFECTS IN DESERT AREAS****Weather Conditions:**

The climate of desert areas of Pakistan is very hot and dry. There is considerable difference of temperature between day and night. During the day Luh (hot wind) and dust storm blow in summer.

**Climate effects:**

The life of the people of these areas is very hard. There is less rainfall, therefore, drinking water is brought from distant places. Life is somewhat comfortable in areas where there is availability of canal water. Rearing of sheep and goats is the major source of earning for the people of these areas.

**CLIMATE EFFECTS IN BALOCHISTAN**

The effects climate of Balochistan are as follows:

**Climate:**

In Pakistan the climate of Balochistan plateau is the hottest in summer and the coldest in winter. Snow falls at some high-altitude areas during winter. This is the driest region of Pakistan. The winter snow is an important source of water. During summer, the depressions and small rivulets get filled with water therefore there are lakes and seasonal streams in this area.

**Karez:**

In hilly areas the rain water is stored and transported from one place to another through underground channels called Karez. As the climate of Balochistan is generally hot therefore, these underground channels or drains are very important and save water from evaporation. Resultantly, farming has started in this area.

**Climate effects:**

Here, the income of the people mostly depends on rearing of cattle and herd. This area is rich in fruit production and mineral resources. People's livelihood depends on the availability of local resources.

**SHORT QUESTIONS AND ANSWERS**

**Q.1** What is meant by climate?

(U.B+K.B)

**Ans:** **THE WEATHER**

The long term study of weather conditions of any country or area is called climate. The weather conditions include temperature, air pressure, rain and humidity etc.

**Q.2 What are the impact of climate on human life?** (U.B+K.B)

**Ans:** THE IMPACT OF CLIMATE ON HUMAN LIFE

Climate affects the human life considerably. It affects all the human activities of a place or an area. The economic, social, cultural and political activities of the people of any country depend to a great extent on climate. The dress, living, food etc., of the people of cold areas are different from the people of hot areas. Similarly, all other activities of trade and commerce also differ.

**Q.3 What is called Karez? What is the reason for cultivation through Karez in Balochistan?** (U.B+K.B+A.B)

**Ans:**

### KAREZ

In hilly areas the rain water is stored and transported from one place to another through underground channels called Karez. As the climate of Balochistan is generally hot therefore, these underground channels or drains are very important and save water from evaporation. Resultantly, farming has started in this area.

### **MULTIPLE CHOICE QUESTIONS**

1. A long-term study of a country or region is called \_\_\_\_\_: (K.B)  
(A) Climate      (B) weather      (C) Season      (D) Karez
2. The southern region of Punjab and the northern and southern regions of Sindh are particularly characteristic: (K.B)  
(A) Mountain      (B) Desert      (C) Coast      (D) Drought
3. Balochistan is a region of Pakistan. (K.B)  
(A) Illiterate      (B) desert      (C) famine-stricken      (D) driest
4. In mountainous areas, rainwater is collected and transported from one place to another through underground drains is called. (K.B)  
(A) Drains      (B) Karez      (C) Rivers      (D) Canals

## **MAJOR GLACIERS AND RIVERS OF PAKISTAN**

### **LONG QUESTIONS**

**Q.1 Write a note on the glaciers and rivers of Pakistan.** (U.B+K.B)

**Ans:** GLACIERS OF PAKISTAN

#### Glacier definition:

A large mass of frozen ice in mountain valleys that moves down the slope is called glacier. Glaciers form in areas of high altitude, due to low temperatures and snowfall.

When the ice remains frozen continuously, ice at the bottom hardens and begins to slide toward lower elevations. Resultantly, the glacier moves.

#### Sub-Tropical Continental Highland

Pakistan is located in the subtropical climatic zone which does not usually get much cold and rain. But the northern and northeastern areas of Pakistan with the highest mountains of Glacier the world like Himalayas, Karakoram and Hindukush remain covered with snow the whole year.

#### The world's largest glaciers:

There are some of the largest glaciers of the world in these mountain ranges, including major glaciers like • Siachen • Baltoro • Biafo • Batura • Hispar

#### Siachen Glacier

The word Siachen is taken from the “Balti” language, which means Wild Rose. This plant grows in large number on this glacier, so people of Baltistan call it Siachen. Its length is 70 km. It is located in Karakoram Range.

#### Baltoro Glacier:

Baltoro Glacier is located in Baltistan. Its length is 62 km. The famous K-2 peak is also located in the same glacier. The Braldu River also originates from the same glacier and falls into River Indus. This glacier can be accessed from Skardu City.

**Batora Glacier:**

Batora Glacier is 54 km long. It is located in Gojal Valley in Gilgit Baltistan.

**Biafo Glacier:**

Biafo Glacier is located in the mountains of Karakoram range. Its length is 63 km and is connected with Hisper Glacier which is located in Hunza Valley.

**Hisper Glacier:**

Hisper Glacier is located in Baltistan area of northern Pakistan. This glacier is 49 km long. The river Hisper originates from the same glacier.

**Importance of Glaciers:****Source of water**

The mountains of Karakoram Range located in Pakistan are one of the most glaciated areas in the world. The fresh water of these glaciers flows into rivers, in the form of springs and drains. The rivers which flow in Pakistan originate from these glaciers.

**Existence of lakes:**

In addition, several fresh water Ipkes have been formed in these mountain ranges due to the degradation (melting) of glaciers, which meet the local needs of water. Out of these, Saiful Muluk, Satpara and Shandur are the important lakes.

**Promoting of Tourism:**

These lakes have greatly enhanced the beauty of this area, which makes this area attractive for tourism.

**Aquatic life:**

In addition, these lakes also support aquatic life in this area.

**SHORT QUESTIONS AND ANSWERS**

**Q.1 What is a glacier?**

(U.B)

**Ans:**

**DEFINITION**

A large mass of frozen ice in mountain valleys that moves down the slope is called glacier. Glaciers form in areas of high altitude, due to low temperatures and snowfall.

When the ice remains frozen continuously, ice at the bottom hardens and begins to slide toward lower elevations. Resultantly, the glacier moves.

**Q.2 Write the names of the three glaciers found in Pakistan?**

(K.B)

**Ans:**

**MAJOR GLACIERS**

There are some of the largest glaciers of the world in these mountain ranges, including major glaciers like:

- Siachen
- Baltoro
- Biafo
- Batura
- Hispar

**Q.3 What does Siachen mean? Where this glacier is located and how long is it?**

(K.B)

**Ans:**

**SIACHEN GLACIER**

The word Siachen is taken from the “Balti” language, which means Wild Rose. This plant grows in large number on this glacier, so people of Baltistan call it Siachen. Its length is 70 km. It is located in Karakoram Range.

**Q.4 Where is the Baltoro Glacier.**

(K.B)

**Ans:**

**BALTORO GLACIER**

Baltoro Glacier is located in Baltistan. Its length is 62 km. The famous K-2 peak is also located in the same glacier. The Braldu River also originates from the same glacier and falls into River Indus. This glacier can be accessed from Skardu City.

**Q.5 Where is the Batura Glacier located? How long is it?** (K.B)

**Ans:** BATURA GLACIER

Batora Glacier is 54 km long. It is located in Gojal Valley in Gilgit Baltistan.

**Q.6 Write a short note on Biafo Glacier? (K.B)**

**BIAFO GLACIER**

Biafo Glacier is located in the mountains of Karakoram range. Its length is 63 km. It is connected with Hisper Glacier which is located in Hunza Valley.

**Q.7 Explain the importance of glaciers.** (U.B)

## **IMPORTANCE OF GLACIERS**

**Glaciers have the following benefits.**

- Fresh water from glaciers flows into rivers in the form of springs and streams. Water is available all year round for cultivation.
  - The erosion of glaciers creates freshwater lakes that meet the needs of the local population.
  - These lakes enhance the beauty of the area and promote tourism.
  - Glacier formed lakes that help flourish aquatic life in the area.

**Q.9 Write the names of some important lakes of Pakistan formed by glaciers. (K.B.)**

**Ans: PAKISTAN'S MAJOR LAKES FORMED BY GLACIERS**

The following are some of the major glacier lakes in Pakistan.

Saiful Maluk Lake, Shandoor Lake and Satpara are the major glacier lakes in Pakistan.

## **MULTIPLE CHOICE QUESTIONS**

- MULTIPLE CHOICE QUESTIONS**

  1. The word “Siachen” is the language of: (A) Balti (B) Gilgit (C) Hebrew (D) Pashto (K.B)
  2. The meanings of Siachen is: (A) Black Rose (B) Red Rose (C) Beautiful Rose (D) Wild Rose (K.B)
  3. The length of Siachen Glacier is: (A) 60 km (B) 70 km (C) 80 km (D) 90 km (K.B)
  4. ---- Valley is located in the Baltoro Glacier: (A) Gilgit (B) Hunza (C) Baltistan (D) Murree (K.B)
  5. The length of the Baltoro Glacier is: (A) 30 km (B) 50 km (C) 60 km (D) 62 km (K.B)
  6. The famous mountain is also located in the Baltoro Glacier: (A) K-2 (B) Himalayan Kabir (C) Shawalak (D) Trich Mir (K.B)
  7. The length of Batura Glacier is: (A) 40 km (B) 50 km (C) 60 km (D) 54 km (K.B)
  8. The length of the Biafo Glacier is: (A) 62 km (B) 63 km (C) 63 km (D) 64 km (K.B)
  9. The length of Hisper Glacier is: (A) 30 km (B) 40 km (C) 45 km (D) 49 km (K.B)

# RIVERS OF PAKISTAN

## **LONG QUESTIONS**

**Q.1 Write in detail a note on the drainage system of Pakistan. (K.B)**

**RIVERS OF PAKISTAN**

The system of rivers in Pakistan is based on the eastern and western tributaries of river Indus.

## The system of rivers Indus which consist

Indus which consist of the Rivers of Punjab, Gilgit-Baltistan, Khyber Pakhtunkhwa, Sindh, Balochistan and Azad Jammu and Kashmir. These rivers irrigate the land of our country.

**“A river is a natural**

**System of Rivers:**

### System of Rivers.

The system of rivers in Pakistan consists of the eastern and western tributaries of Sindh, which include the rivers of Punjab, Gilgit-Baltistan, Khyber Pakhtunkhwa, Sindh, Azad Kashmir and Balochistan. They irrigate the land of our country.

**The Indus and its tributaries:**

The details of the Indus and its tributaries are as follows:

**Location:**

River Indus is the largest river of Pakistan that irrigates a large area of the Punjab as well. This river originates from Tibet (China) and flows through Gilgit- Baltistan and enters Punjab at Attock. There after it flows from north to south and enters Sindh. The rest of rivers of the Punjab join river Indus at Mithan Kot. From here, river Indus flows to the south through the province of Sindh and falls into the Arabian Sea.

**Tributaries of Indus River:**

As it flows through its course, it is joined by several rivers, small and large from left and right. These are called tributaries of River Indus.

**EASTERN TRIBUTARIES OF THE RIVER INDUS**

Many tributaries of the River Indus join from the right and left. The rivers that join river Indus from the left are called the eastern tributaries because they mostly come from the east.

**(i) River Ravi:**

River Ravi originates from the mountains of Kashmir. This river flows through Indian territory and enters Pakistan near Lahore. Lahore, the capital of the Punjab, is situated on the bank of River Ravi.

**(ii) Sutlej River:**

River Sutlej originates from the Himalayas and flowing through Indian territory enters Punjab province near Sulemanki. Then flowing through the eastern areas of Punjab joins other rivers of Punjab.

**(iii) Chenab River:**

River Chenab River Chenab originates from the Himalayan mountains and enters Punjab province at Marala. River Chenab joins River Jhelum at Tarimon.

**(iv) Jhelum River:**

The Jhelum River originates in the Kashmir Valley and flows into the Punjab Province near Mangla.

**Doaba:**

The area between two rivers is called Doaba. There are several Doabs in Pakistan. In Bari Doabs the Ravi River on one side and river Bias on the other. The area between river Ravi and river Chenab is called Rachna Doab. The area between river Chenab and river Jhelum is known as Chaj Doab, while the area between river Indus and river Jhelum is called Sindh Sagar Doab.

**WESTERN TRIBUTARY OF THE INDUS**

The rivers that meet on the right side of the Indus River flow into the Indus from the north and west. That is why it is also called the western tributary river. The details of which are as follows:

**Northern River:**

The Shiawak, Shigar and Gilgit rivers are important rivers in the northern mountainous areas that meet the Indus.

**Eastern River:**

At Attack, the Kabul River flows into the Indus River. The Kabul River is a large river that starts in Afghanistan and flows eastwards into Pakistan. The Panjgur, Swat and Kunhar rivers are its main tributaries.

**Western River:**

The Kurram, Tochi and Gomal rivers also flow from the west into the Indus.

**Southern River:**

The Zouhb River flows through the Zouhb and Loralai areas of Baluchistan and joins the Gomal River, a tributary of the Indus. The Zouhb River is the only river that flows from south to north.

**Rivers of Baluchistan:**

The rivers Dasht, Hangul, Purali and Hub are the river of Baluchistan that flow from north to south and flow into the Arabian Sea. The biggest lake in Baluchistan is Hamun Mashkhel.

**SHORT QUESTIONS**

**Q.1 Write a short note on the Indus River?** (U.B+K.B)

**Ans:**

**THE INDUS RIVER**

River Indus is the largest river of Pakistan that irrigates a large area of the Punjab as well. This river originates from Tibet (China) and flows through Gilgit- Baltistan and enters Punjab at Attock. There after it flows from north to south and enters Sindh. The rest of rivers of the Punjab join river Indus at Mithan Kot. From here, river Indus flows to the south through the province of Sindh and falls into the Arabian Sea.

As it flows through its course, it is joined by several rivers, small and large from left and right. These are called tributaries of River Indus.

**Q.2 What is meant by the eastern tributary river? Write their names.** (U.B+K.B)

**Ans:**

**EASTERN TRIBUTARY OF RIVER INDUS**

Many tributaries of the River Indus join from the right and left. The rivers that join river Indus from the left are called the eastern tributaries because they mostly come from the east. The eastern tributaries of the Indus are the Ravi, Sutlej, Chenab and Jhelum.

**Q.3 What is meant by the western tributary river?** (U.B+K.B)

**Ans:**

**WESTERN TRIBUTARY RIVER**

The rivers that meet on the right side of the Indus River flow into the Indus from the north and west. That is why it is also called the western tributary river.

**Q.4 What is meant by Indus Water Treaty.** (K.B)

**Ans:**

**INDUS WATER TREATY**

In 1960, with the cooperation of the World Bank, an agreement was signed between Pakistan and India called the Indus Water Treaty.

- The Indus River, the Chenab River and the Jhelum River became part of Pakistan
- The Ravi, Sutlej and Beas rivers became part of India.

**Q.5 What is meant by Doaba? Write the names of the Doaba of Pakistan?** (K.B)

**Ans:**

**DOABA**

The area between two rivers is called Doaba. There are several Doabs in Pakistan:

- Bari Doabs the Ravi River on one side and river Bias on the other.
- The area between river Ravi and river Chenab is called Rachna Doab.
- The area between river Chenab and river Jhelum is known as Chaj Doab.
- The area between river Indus and river Jhelum is called Sindh Sagar Doab.

**MULTIPLE CHOICE QUESTIONS**

- Pakistan's largest river is:** (A) Jhelum River (B) Chenab River (C) Sutlej River (D) Indus River (K.B)
- The Indus River originates in China:** (A) Tibet (B) Torabora (C) Belgium (D) Beijing (K.B)
- River Indus enters Punjab at:** (A) Peshawar (B) Kamra (C) Gojra (D) Attock (K.B)
- All the rivers of Punjab join the Indus at the place of:** (A) Thatta (B) Layyah (C) Lodhran (D) Kot Mithan (K.B)
- The river Ravi originates from the mountains:** (A) Karakoram (B) Himalayas (C) Gilgit (D) Kashmir (K.B)
- The capital of Punjab is:** (A) Sahiwal (B) Gujra (C) Lahore (D) Multan (K.B)
- The Sutlej River originate from:** (A) Himalayas (B) Karakoram (C) Hindu Kush (D) Kirthar (K.B)
- The Sutlej River enters the province of Punjab:** (A) Sahiwal (B) Lahore (C) Qadirabad (D) Sulemanki (K.B)
- The area between two rivers is called:** (A) Plain (B) Desert (C) Doaba (D) Plateaus (K.B)
- Between the Ravi and Sutlej rivers is:** (A) Bari Doab (B) Rachna Doab (C) Chaj Doab (D) Sindh Sagar Doab (K.B)
- Between the Ravi and Chenab rivers is:** (A) Sindh Sagar Doab (B) Chaj Doab (C) Bari Doab (D) Rachna Doab (K.B)
- Between the Jhelum and Indus rivers is:** (A) Rachna Do Aab (B) Sindh Sagardo Aab (C) Bari Do Aab (D) Sutlej River (K.B)
- The river Jhelum originates form the valley of:** (A) Kashmir (B) Saif-ul-Muluk (C) Sawan Valley (D) Satpara (K.B)
- The Kabul River originate from:** (A) Iran (B) India (C) Afghanistan (D) China (K.B)
- The only river flows from south to north:** (A) Hub River (B) Karam River (C) Tochi River (D) Zhob River (K.B)

**CANALS OF PAKISTAN****LONG QUESTIONS**

- Q.I** Write a detail note on Pakistan's Canal System. (U.B+K.B)

**Ans:** PAKISTAN'S CANAL SYSTEM

In the subcontinent, the British government built a state-of-the-art canal system at the beginning of the 19th century, which is today called the largest canal system in the world. Under this system, canals were constructed on five rivers by constructing large dams and head works at different places.

**Types of Canals:**

There are four types of canals found in Pakistan. The details are as follows:

**i. Flood or blood Canals:**

These are the canals in which water comes through floods or when there is more water in the rivers. These canals do not have headworks. In the rainy season when the rivers overflow, the canals start flowing automatically.

**Areas:**

The flood canals are mostly in Rajanpur, Dera Ghazi Khan and Muzaffargarh districts.

**ii. Perennial Canals:**

These canals are closed to rivers and run all year round. The water of the river can be stopped and released into the canal as required by the dam. These canals are connected to the dam, barrage or head and provide water for irrigation all the year round.

**iii. Non-Perennial Canals:****Kharif Season:**

During the rainy season, when the rivers have ample water, these canals run and provide water for the kharif crop. Can

**Spring Season:**

Due to lack of water in the rivers, these canals do not provide water for the Rabi crop. These canals are also called semi-canals (six-month canals).

**iv. Link Canals:**

The two rivers of the province of Punjab, the Sutlej and the Ravi, pass through parts of India. India has built canals from these rivers. Therefore, the shortage of water in these rivers in Pakistan is met by communication canals. Water is supplied to the western rivers Ravi and Sutlej by diverting canals from the eastern rivers Sindh, Jhelum and Chenab.

**SHORT QUESTIONS****Q.1 How many types of canals in Pakistan?**

(K.B)

**Ans:****TYPES OF CANALS**

There are four types of canals found in Pakistan which are as follows:

- Flood Canals
- Perennial Canals
- Non-Perennial Canals
- Link Canals

**Q.2 What is meant by flood canals?**

(U.B+K.B)

**Ans:****FLOOD CANALS**

These are the canals in which the water enters through flood or when the water level in the rivers is high. These canals do not have headworks. In the rainy season, the canals start flowing automatically as the rivers rise. The flood canals are mostly found in the districts of Rajanpur, Dera Ghazi Khan and Muzaffargarh.

**Q.3 What is meant by Perennial Canals?**

(U.B+K.B)

**Ans:****PERENNIAL CANALS**

These canals have been taken out by constructing dams on rivers and flow throughout the year. The river water can be diverted by the headworks ad discharged into the canals as per requirement. These canals arc connected to dams, barrages or headworks and provide water for irrigation over the year.

**Q.4 What is meant by non-Perennial Canals?**

(K.B)

**Ans:****NON-PERENNIAL CANALS**

These canals run in rainy season when water is sufficient in the rivers. They provide water for the Kharif crop. Like the perennial canals, non-perennial canals also have headworks through which water can be diverted. These canals do not provide water for Rabi crop due to shortage of water in the rivers. These canals are also called half-yearly canals (six-monthly canals).

**Q.5 What is meant by Link Canals.**

(K.B)

**Ans:****LINK CANALS**

The two rivers of Punjab province i.e. River Sutlej and River Ravi pass through Indian territory before entering Pakistan. India was drawn canals from these rivers, resulting in water shortage in these rivers. Pakistan has met this water shortage through link canals. These canals have been taken out from river Indus, river Jhelum and river Chenab which provide water to river Ravi and river Sutlej.

# MULTIPLE CHOICE QUESTIONS



FORESTS

## **LONG QUESTIONS**

- Q.1 Discuss the types, importance and protection of forests in Pakistan. (Ex. Q No: 5) (U.B)**  
**Ans: FORESTS OF PAKISTAN**

According to one definition, a forest is a piece of land with a large number of trees. The environmental importance of forests is obvious and the survival of human society is almost impossible without them. Currently, 30% of our land is covered by forests. According to the United Nations Food and Agriculture Organization (UNFAO), 18 million hectares of the world's forests are cut down each year. If this trend continues, rain forests could disappear in the next hundred years. Given this importance, World Forest Day is celebrated around the world on January 30. Residents around the world are made aware that the presence of forests provides energy to a country's environment, urban development, economy and human beings in various ways. 25% of a country's population should be covered by forests. - In Pakistan, this area covers 4.24 million hectares which is 4.8% of the total area. Due to the differences in the climate of Pakistan, the following different types of forests are found here:

## **Forests in the North and Northwest:**

The northern and northwestern parts of Pakistan receive more rain as compared to the other areas of the country. These include Murree, Abbottabad, Mansehra, Chitral, Sawat and Dir. These areas have evergreen forests consisting of deodar, firs, blue pine, spruce, chilgoza trees, oak, chestnut and walnut trees. These trees produce high quality timber and fruits.

## Forests in the Foothills:

In the foothill areas of districts of Peshawar, Mardan, Kohat, Attock, Rawalpindi, Jhelum and Gujrat, the forests consist of phulai, kao, jand, acacia, wild olive, black berry trees, etc.

## **Forests of Balochistan Province:**

Quetta and Kalat divisions of Balochistan have mostly thorny bushes, mazoo, chalghoza and poplar trees.

## **Forests of Plains Areas:**

In plain areas some forests are found in the river valleys having sheesham, poplar, mulberry, sumbal, Jamun, dharek and eucalyptus trees. These areas include Changa Manga, Chichawatni, Khanewal, Toba Tek Singh, Burewala, Shorkot, Bahawalpur, Taunsa, Sukkar, Kotri and Guddu.

### The world's densest forests:

The world's most dense forests are found near the equator. Which are called Roof Gardens.

### **IMPORTANCE OF FORESTS**

Forests have a profound effect on the climate and economy of any country. The importance of forests can be gauged from the following points:

#### **Reduction of Soil Erosion:**

The northern mountainous areas of Pakistan receive more rain and water flowing from the hilly slopes drops into rivers. The forests on the slopes of hills regulate the flow of water, which not only stops soil erosion but also slows down the speed of water.

#### **Source of Energy:**

In Pakistan energy resources are limited therefore the forest wood meets the deficiency of coal. This wood is used as fire wood or for generating power.

#### **Used in Furniture:**

Forests wood is used for making furniture or other items. Therefore forests are important for country's trade.

#### **Pleasant Climate:**

Forests make the climate of any area pleasant. Reduce the intensity of the temperature.

#### **Smog Reduction:**

Forests make the climate of an area pleasant. They lower the temperature and reduce intensity of heat. Forests are helpful in reducing environmental pollution, especially smog.

#### **Rainfall:**

Forests are instrumental in causing rainfall to a great extent, because, their presence increases the amount of water vapours in the air which causes rain.

#### **Land Fertility:**

The roots of the trees keep the soil intact and stop the soil erosion. Thus soil fertility remains unaffected.

#### **Required for Dams and Lakes:**

In the absence of forests, the rivers carry huge amount of sand and silt that can fill the dams and artificial lakes and destroy hydroelectric power projects.

#### **Water Logging and Thor Reduction:**

Trees are very useful in water logged and salinity affected areas, as they absorb water from the soil and lower water level of underground reserves.

#### **Used in Medicine:**

Forest herbs are used for the preparation of medicines.

#### **Promoting Tourism:**

Forests promote tourism. There are many places in the northern and northwestern mountainous areas of Pakistan which are recreational resorts because of forests.

#### **Essential for Wildlife:**

Forests are very important for the wild life (animals and birds).

#### **Acquisition of Fruits and Fodder:**

Forests provide us with a variety of fruits and fodder for animals.

#### **Role in the Economy:**

Forests play an important role in Pakistan's economy. Millions of jobs are linked to forests.

#### **Industry Source:**

Forests support resins and silk industry and also provide mushrooms, honey and wax.

#### **Used to Make Paper:**

Forest provide raw material for pulp and paper industry.

### **PROTECTION OF FORESTS**

For a country to have a temperate climate, forests must cover 20 to 25% of its total area, but our country has only 4.8% of its land area and the rate of deforestation has not increased for a long time.

**Government Measures:**

The government of Pakistan is making great efforts to increase the forest area. The government of Pakistan has taken many steps to increase the forest cover. The forest department is working hard in this regard. Nurseries have been set up in all major cities for planting trees where plants are available at reasonable prices. Here are some of the steps you take each year:

- Twice a year a tree planting campaign is run at the government level.
- The government imports different types of seeds and provides them to the people by growing nurseries so that the people can be encouraged to grow trees.
- An advertisement campaign in the media seeks to create awareness among the people about the increase in the rate of deforestation. These government initiatives can be expected to improve the area under afforestation, but to make the afforestation campaign more effective, its scope should be extended to schools and colleges, as well as stricter legislation to prevent tree theft. Can also be very helpful.

**WILDLIFE IN PAKISTAN****LONG QUESTIONS**

**Q.1 What wildlife is found in Pakistan? Explain in detail.**

(U.B+K.B)

**Ans:**

**PAKISTAN'S WILDLIFE****Introduction:**

The presence of wildlife in any country is a great help in maintaining the natural balance. There are many animals in the forests of Pakistan. However, the animals found in the mountainous and desert areas of Pakistan are noteworthy. The following are the details of the wildlife found in the forests of Pakistan:

**Northern Wildlife:**

Monkeys, wild cats and bears are abundant in the northern parts of Pakistan and or the high hills.

**Wildlife of South Punjab:**

In South Punjab, blue cows, wild cats, jackals, partridges, peacocks and sparks are notable.

**Wildlife of Low-Altitude Slopes:**

Red foxes, black deer, cheetahs, partridges and hawks can be seen on the low mountain slopes.

**Pothwar Wildlife:**

Forests are found in abundance on the plateaus of Pothwar, Kohistan-e-Namak and Kala Chitta Mountains. These forests are home to many wild animals including Ariyal, Chinkara, Deer, Partridge, Peacock, Chakur and Regional Birds. Chakur is the national bird of Pakistan. Markhor is the national animal of Pakistan.

**Wildlife of Thai and Cholistan:**

Deer, blue cows, desert foxes, jackals, cats, black and gray partridges, cobras and ostriches are also found in the desert areas of Thai and Cholistan.

**Birds of Prev:**

Birds of prey include squirrels, hawk and vultures.

**Migrated Birds:**

In addition to these birds, many meteorological birds migrate from Siberia and other cold regions to the lakes of Pakistan at the beginning of winter every year and return to their homeland after the onset of winter.

**Endangered Animals:**

Endangered species are those that are on the verge of extinction, such as the polar bear, the Indus dolphin, and the deer.

**Balanced Environment:**

Along with forests, the seven animals found in them are also important because they balance our environment, so we must protect them as well.

**Conclusion:**

Wildlife enhances the natural beauty of any country and maintains its natural balance. Therefore, there is a need to create awareness among the people for the protection of wildlife so that the problems faced by wildlife can be reduced.

**SHORT QUESTIONS****Q.1 What is meant by forests?**

(K.B)

**Ans:****FORESTS**

Everywhere a large clump of trees is called a forest, as in Pakistan there are forests in the plains, hills, coastal and hilly foothills.

**Q.2 Which trees are found in the forests of Baluchistan?**

(K.B)

**Ans:****FORESTS OF BALUCHISTAN**

The following trees are found in the forests of Baluchistan.

- Gerardiana seeds
- Mazo
- Chalgoza
- Melbary
- Poplar

**Q.3 Which trees are found in the forests of the plains?**

(K.B)

**Ans:****FORESTS OF PLAINS AREAS**

The following trees are found in the forests of the plains.

- Sheesham
- Poplar
- Mulberry
- Sambai
- Jaman
- Dharik
- Sufaida

**Q.4 How forests are effective in reducing smog?**

(U.B+K.B)

**Ans:****SMOG REDUCTION**

Toxic fumes, a mixture of dust and polluted water, dissolved in the air is called "smog" which affects oxygen and causes severe difficulty in breathing, which in some cases leads to death. Forests are helpful in reducing environmental pollution, especially smog.

**Q.5 How can trees be useful in water logging and salinity areas?**

(U.B+K.B)

**Ans:****BENEFIT OF TREES**

Trees are frequent in bean and thorn-infested areas as they absorb water from the ground, which reduces the amount of groundwater and lowers its surface.

**Q.6 Explain the two benefits of forests.**

(U.B+K.B)

**Ans:****THE BENEFITS OF FORESTS**

The benefits of forestry are as follow:

- Forest wood, furniture and other items are used to make. Therefore, forests are important in the country's trade.
- Forests make the climate of any area pleasant. They reduce the intensity of temperature. Forests are helpful in reducing environmental pollution, especially smog.

**Q.7 Write government measures to increase forests.**

(K.B+A.B)

**Ans:****GOVERNMENT MEASURES**

The government of Pakistan has taken a number of steps to increase forest cover. The forest department is working hard in this regard. Nurseries have been set up in all major cities for planting trees where plants are available at reasonable prices. Twice a year a tree planting campaign is carried out with the onset of spring and rainy season. Various Welfare organizations are also doing useful work in this regard.

**Q.8 What is meant by Roof Garden?**

(K.B)

**Ans:****ROOF GARDEN**

The world's most dense forests are found near the equator called the Roof Garden.

**Q.9 What is meant by wildlife?**

(K.B)

**Ans:**

### **WILDLIFE**

Due to the different climate and natural features of the forests, there are different types of animals and birds which we call wildlife. The presence of wildlife in any country is a great help in maintaining the natural balance. Numerous animals are found in the forests of Pakistan. However, the animals found in the mountainous and desert areas of Pakistan are noteworthy. For example, snow leopards, bears, wolves, markhors in mountainous areas and jackals, wolves, partridges and quails in the plains.

**Q.10 Write the names of animals found in the northern areas of Pakistan.**

(K.B)

**Ans:**

### **ANIMALS IN NORTHERN AREAS**

The following animals are found in the northern regions and high hills of Pakistan:

- Blue cow
- Wild cats
- Wolves
- Partridges
- Snakes
- Peacock and chinkara are notable

**Q.11 Write the names of animals found in low slopes.**

(K.B)

**Ans:**

### **ANIMALS IN LOW SLOPES**

Red low peas, black deer, partridges, cheetahs and chakras are found on the low mountain slopes.

**Q.12 Write the names of the animals found in Kohistan Namak and Kala Chitta mountains.** (K.B)

**Ans:**

### **ANIMALS IN KOHISTAN-E-SALT**

The following animals are found in the forests of Kohistan Namak and Kala Chatta pahar:

- Fly
- Chinkara
- Deer
- Partridge Peacock
- Squirrel

**Q.13 Which is the national animal of Pakistan?**

(K.B)

**Ans:**

### **NATIONAL ANIMAL**

Markhor is the national animal of Pakistan.

**Q.14 Which is the national bird of Pakistan?**

(K.B)

**Ans:**

### **NATIONAL BIRD**

The Chakor is the national bird of Pakistan.

**Q.15 Write the names of the animals found in the deserts of Thal and Cholistan?** (K.B)

**Ans:**

### **ANIMALS IN THE DESERTS**

These areas are form to blue cows, desert fox, Jackals, Cats, Black Partridge, Cobra and Ostrich.

**Q.16 What is the importance of wildlife?**

(U.B+K.B)

**Ans:**

### **IMPORTANCE OF WILDLIFE**

The presence of wildlife in any country is a great help in maintaining the balance as well as the beauty and charm of the country. Along with the forests, the animals found in them are also important as they keep our environment in balance. So, we must protect them.

**Q.17 Which animals are endangered by the World Health Organization?** (K.B)

**Ans:**

### **ENDANGERED ANIMALS**

Endangered species are endangered species such as the polar bear, the Indus Dolphin, and the black deer.

## MULTIPLE CHOICE QUESTIONS

- 1.** Snow leopards, Marco polo sheep and brown bears have been identified as endangered by the agency: (K.B)  
(A) International Organization (B) The World Bank  
(C) The World Nations (D) World Law

**2.** The wildlife found in the Chinkara deer and peacock areas are: (K.B)  
(A) In mountainous areas (B) In deltaic areas  
(C) In desert areas (D) In plateaus

**3.** The national bird of Pakistan is: (K.B)  
(A) Markhor (B) Partridge (C) Squirrel (D) Peacock

**4.** The national animal of Pakistan is: (K.B)  
(A) Markhor (B) Peacock (C) Squirrel (D) Partridge

**5.** Forests help reduce environmental pollution, in particular: (K.B)  
(A) Atmosphere (B) Earth (C) Industry (D) Smog

**6.** Forest industry sources are: (K.B)  
(A) Cotton cloth (B) Food and drink (C) Business (D) Lacquer and silk

# NATURAL REGIONS OF PAKISTAN

## **LONG QUESTIONS**

- Q.1 Write a detail note on the natural region of Pakistan. (K.B)**

**Ans:** NATURAL REGIONS OF PAKISTAN

The vast areas of Pakistan is not uniform. Each region differs from another in terms of its climate, flora, people's way of life and surface condition. Therefore, it can be divided into different natural regions on the basis of uniformly.

## **Definition:**

“Natural region” refers to an area in which the weather, vegetation, population, and the way of life of the people are the same, “Temperature, rainfall, vegetation, wildlife and human function are almost the same.”

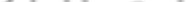
## Distribution of Natural Terrain:

Pakistan can be divided into five parts in terms of natural regions:

- Plain region
  - Desert region
  - Coastal region
  - Dry and semi-arid mountainous region
  - Wet and semi-humid mountainous region

The following is a description of these letters:

- Q.2 Explain the importance of Pakistan's plain region.** (U.B+K.B)

**Ans:**  **PLAIN REGION**

# PLAIN REGION

## **Introduction:**

Most of the plains of Pakistan fall in Punjab and Sindh province which is called the upper and lower plains of the Indus River. However, the plains also fall in the province of Baluchistan. We will now mention them all in turn.

i. Areas:

The climate of this region is very dry. Summers are extremely hot and winters are cold. The average temperature in summer is 40 degrees Celsius while the average temperature in winter is 10 degrees Celsius.

### Annual Rainfall:

Rainfall in this area is caused by monsoon winds during the rainy season. The average annual rainfall in the region is 15 to 20 inches annually.

## **ii. Vegetation:**

The region receives better rainfall, so there are more forests. Tropical forests are often found here.

**iii. Economic Condition:**

This area is made up of very fertile soil brought by rivers. In addition, the canal irrigation system in the region is very good. Therefore, this region is famous all over the world for its agriculture production.

**Main Crops:**

The major crops in the area are rice, wheat, sugarcane and cotton.

**Industrial Development:**

The region is also playing an important role in the country's industrial development. Most of the country's industries are located in this area.

**Major Industries:**

These industries include textile, electronics, electrical appliances, sports goods, sugar industry, leather industry and cutlery industry.

**Industrial City:**

Major industrial cities include Lahore, Faisalabad, Gujranwala, Peshawar, Gujrat, Multan, Kasur, Sialkot, Nawabshah, Mardan, Nowshera and Sukkur.

**iv. Population:**

The region is the most densely populated region in the country. 50% of the country's population lives in this region. The majority of the population is rural, but the urban population is also growing rapidly.

**Q.3 Write a note on the desert region of Pakistan.**

(U.B+K.B)

**Ans:**

**DESERT REGION****Definition of the Desert:**

"An area where the annual rainfall is less than 10 inches is called desert."

**i. Areas:**

The desert region of Pakistan consists of the following areas:

- Thal in Punjab Province (Khushab, Bhakkar, Mianwali and Layyah districts)
- Cholistan in Punjab Province (Districts of Bahawalpur Bahawalnagar and Rahim Yar Khan)
- Thar in Sindh Province (Khairpur District, Tharparkar, Umerkot)
- The province of Baluchistan consists of the areas of Seihan.

**ii. Climate:**

The climate of the desert region is extremely dry and harsh. In summer, the average daytime temperature is over 40 °C. It is hot during the day. There is a big difference between day and night temperatures in desert areas. Temperature is very low in summer season. Winter season is also very cold in desert areas.

**Annual Rainfall:**

Annual rainfall in these areas is less than 5 inches.

**Vegetation:**

The lack of rainfall and high temperature in the desert region are due to the lack of vegetation. Herbs and cactus trees can be seen here and there.

**iii. Economic Condition:**

This area consists of more priority areas. Most people make a living by farming and raising livestock. Due to low rainfall in the region, agricultural activities are less. Due to the presence of canal system in the Thal desert, people cultivate. Irrigation systems are not available in most areas.

**Industrial City:**

Bahawalpur is the largest in the region. Where there are some textile industries. In addition, the entire region is industrially backward.

**iv. Population:**

The region is not densely populated. The rural population is mostly scattered. The proportion of urban population in this region is low.

**Main City:**

Major cities include Bahawalpur, Bahawalnagar, Rahim Yar Khan, Umerkot and Khushab.

**Q.4 Write a note on the coastal region of Pakistan.**

(U.B+K.B)

**Ans:****COASTAL REGION**

The importance of Pakistan's coastal region is as follows:

**i. Areas:**

This region consist of the coastal strip of Baluchistan Province and Sindh Province. The important areas of this region include Thatta, Badin and Karachi in Sindh province, Lasbela, Gwadar, Pansi, Turbat and Panjgur in Baluchistan province.

**ii. Climate:**

- The climate of this region is mild.
- There is not much difference between summer and winter temperatures due to the proximity of the sea.
- The average summer temperature is 30 degrees Celsius.
- The average winter temperature is up to 15 degree Celsius.

**Characteristics of the Coastal Region:**

Humidity is high throughout the year in the coastal region while Naseem Bari (plain wind) and Naseem Bahri (sea wind) are the main features of this region which keep the climate mild.

**Annual Rainfall:**

Rainfall is also low in this region. The average annual rainfall is 12 inches.

**iii. Vegetation:**

There are few forests in this region. Due to the low rainfall coconut trees are not as common here as in the rest of the world. Coastal mangroves are abundant in coastal areas.

**iv. Economic Condition:**

Being a coastal strip, fishing is an important occupation of the region. The small ports of pasni, Jivani and Gadani on the coast of Baluchistan are famous for fishing. The construction of Gwadar port in Baluchistan has started a new chapter of prosperity there. Fishing is the main occupation of the people in the coastal rural areas of Sindh.

**International Seaport:**

Karachi has the status of an international seaport, so it is the center of world trade activities.

**Industrial City:**

Besides Karachi is a huge industrial city. People from all over the country are involved in various types of employment here. Karachi is the largest industrial city in Pakistan.

**v. Population:**

The coastal region is densely populated in terms of population. The region has a majority urban population. Other ports, Port Qasim, Gadani and Gwadar, have high fishing populations.

**Densely Populated City:**

- Karachi is the most densely populated city and port in the region.
- Its population is more than 15 million.

**Q.5 Write a note on the arid and semi-arid mountainous region of Pakistan.**

(U.B+K.B)

**Ans:****ARID MOUNTAIN REGION**

The main features of the arid and semi-arid mountainous regions of Pakistan are as follows:

**i. Areas:**

This mountainous region consists of the western mountain ranges of Pakistan and the Baluchistan plateau. Areas in the region include the tribal areas, the southwestern districts of Khyber Pakhtunkhwa, Der Ismail Khan, Tank, Bannu, Karak and Kohat, and all provinces of Baluchistan except the southern coastal areas and the eastern Sibi and Jaffarabad.

**ii. Vegetation:**

There are very few forests in this region. Some fruit orchards and different crops are cultivated on a limited scale.

**iii. Climate**

The climate of Arid region is extremely hot and dry. Summers are extremely dry and hot. In most the areas, the average summer temperature remain 35 degrees Celsius. The average winter temperature is 7 degrees Celsius. Most of the mountainous areas get snowfall.

**Western Cyclone:**

Rainfall in the region is caused by western cyclones in winter and very little in summer. Therefore, there is less forest but there is more pasture in this area.

**Annual Rainfall:**

Annual rainfall in the region is less than 12 inches.

**iv. Population:**

This area is not very densely populated. The rural population is larger than the urban population. In this area, a large number of women are now working alongside men. The literacy rate in this region is higher than other regions.

**Main City:**

Major cities in the region include Islamabad, Murree, Abbottabad, Mansehra, Swat, Hunza and Gilgit.

**SEMI-ARID MOUNTAINOUS REGION****i. Areas:**

The semi-arid mountainous region is generally home to the salt range, Kala Chitta mountain, the Suleman Mountains, and the Kirthar Mountain.

**ii. Climate:**

Summer is hot and long. There is an annual rainfall of 30cm to 38cm.

**iii. Vegetation:**

This area is very famous for its fruit production. Maize, millet, gram and peanut are the main crops here.

**iv. Population:**

This region has small population. The rural population is more than the urban population.

**Q.6 Write a note on Pakistan's humid and semi-humid mountainous region. (K.B)****Ans:****HUMID MOUNTAIN REGION****i. Areas:**

The humid mountainous region includes Murree in Punjab and Abbottabad, Mansehra and Hazara in Khyber Pakhtunkhwa.

**ii. Climate:****Summer:**

Summer is pleasant in this region. Summer temperature is about 26 degrees Celsius

**Winter:**

It is very cold in winter. Winter temperature is zero degrees Celsius or less.

**Annual Rainfall:**

The annual rainfall here is more than 125cm.

**iii. Vegetation:**

This region is covered with different types of trees. Different types of fruits are produced in abundance in this area.

**iv. Population:**

The region is densely populated. Its urban population is in majority.

**SEMI-HUMID MOUNTAINOUS REGION****i. Areas:**

The semi-humid hilly region includes Kohat, Kashmir, Swat and Chitral.

**ii. Climate:**

It is not very hot in summer and it is cold in winter.

**Annual Rainfall:**

There is not much rain in this region. The annual rainfall is about 50cm. The summer is not hot and winter is cold.

**iii. Vegetation:**

There are many types of trees in this region. There is limited production of crops and fruits.

**iv. Population:**

The region is not densely populated.

**SHORT QUESTIONS****Q.1 What is meant by natural region?**

(K.B)

**Ans: NATURAL REGION**

"Natural region" refers to an area in which the weather, vegetation, population, and the way of life of the people are the same. "Temperature, rainfall, vegetation, wildlife and human function are almost the same."

**Q.2 Write the names of four natural regions of Pakistan.**

(K.B)

**Ans: THE DISTRIBUTION OF NATURAL LANDS**

Pakistan can be divided into five parts in terms of natural regions. The major natural regions of Pakistan are as follows:

- Plain region
- Desert region
- Coastal region
- Dry and semi-arid mountainous region
- Humid and semi-humid mountainous region

**Q.3 What are the major crops of the plain region?**

(U.B)

**Ans: THE MAIN CROPS**

The major crops in the area are rice, wheat, sugarcane and cotton. This area is made up of very fertile soil brought by rivers. In addition, the canal irrigation system in the region is very good. Therefore, this region is famous all over the world for its agricultural production.

**Q.4 What are the major industrial cities in the plains of Pakistan?**

(U.B)

**Ans:****INDUSTRIAL CITY**

Lahore, Faisalabad, Gujranwala, Peshawar, Gujrat, Multan, Kasur, Sialkot, Nawabshah, Mardan, Nowshera and Sukkur are some of the major industrial cities in the plains region of Pakistan.

**Q.5 Describe the economic situation in the desert region.**

(U.B)

**Ans:****ECONOMIC CONDITIONS**

- This area consists of more priority areas.
- Most people make a living by farming and raising livestock.
- Due to low rainfall in the region, agricultural activities are less.
- However, due to the presence of canal system in the Thar desert, people cultivate.
- Irrigation system is not available in most areas.
- In addition, the entire region is industrially backward.

**Q.6 Write the importance of Karachi seaport?**

(U.B)

**Ans:****IMPORTANCE OF KARACHI SEAPORT**

The commercial importance of Karachi port is as follow:

- Karachi is an international port, so it is a hub for world trade.
- Most of Pakistan's trade is through this port.
- Pakistan's trade relations with Eastern and Western countries are established through this port.

**Q.7 What are the major crops of the semi-arid hilly region?**

(U.B)

**Ans:****SEMI-ARID MOUNTAINOUS REGION**

The area is famous for its fruit production. Maize, millet, gram and groundnut are the major crops grown here.

**Q.8 Which areas are included in the semi-humid mountain region?**

(K.B)

**Ans:**

## **SEMI-HUMID MOUNTAINOUS REGIONS**

The semi-humid mountainous region includes the following areas:

- Kohati
  - Swat
  - Kashmir
  - Chitral

## **MULTIPLE CHOICE QUESTIONS**

- 1.** The climate of the plains is: (K.B)  
(A) Extremely cold (B) Extremely hot  
(C) Extremely semi-dry (D) Extremely dry

**2.** The average summer temperature in the plains of Pakistan is: (K.B)  
(A) 20 C (B) 30 C (C) 40 C (D) 50 C

**3.** The average winter temperature in the plains of Pakistan is: (K.B)  
(A) 5 C (B) 10 C (C) 15 C (D) 20 C

**4.** The average annual rainfall in the plains of Pakistan is: (K.B)  
(A) 15 to 20 inches (B) 20 to 25 inches (C) 25 to 30 inches (D) 10 to 15 inches

**5.** Pakistan's population lives in the plains: (K.B)  
(A) 50% (B) 40% (C) 48% (D) 52%

**6.** In which province is the Thal Desert located? (K.B)  
(A) Sindh Province (B) Baluchistan Province  
(C) Khyber Pakhtunkhwa Province (D) Punjab Province

**7.** In which province is the Thar Desert located? (K.B)  
(A) Sindh Province (B) Baluchistan Province  
(C) Khyber Pakhtunkhwa Province (D) Punjab Province

**8.** Annual rainfall occurs in the desert areas of Pakistan: (K.B)  
(A) 4 inches (B) 5 inches (C) 6 inches (D) 7 inches

**9.** The average summer temperature in the coastal areas of Pakistan is: (K.B)  
(A) 10 C (B) 15 C (C) 25 C (D) 30 C

**10.** The average winter temperature in the coastal areas of Pakistan is: (K.B)  
(A) 10 C (B) 12 C (C) 15 C (D) 16 C

**11.** The main occupation of Pakistan's coastal region is: (K.B)  
(A) Fishing (B) Agriculture (C) Boating (D) Industry

**12.** The population of Karachi is: (K.B)  
(A) 20 million (B) 30 million (C) 15 million (D) 10 million

**13.** Rarely \_\_\_\_\_ found in the arid mountain region: (K.B)  
(A) Forests (B) Desert (C) Desert (D) Coast

**14.** The average summer temperature in the arid mountainous regions of Pakistan is: (K.B)  
(A) 20 C (B) 25 C (C) 35 C (D) 40 C

**15.** The average winter temperature of the arid mountain region is: (K.B)  
(A) 2 C (B) 3 C (C) 5 C (D) 7 C

**16.** The semi-arid mountain region receives annual rainfall: (K.B)  
(A) 10 to 12 inches (B) 12 to 15 inches (C) 13 to 15 inches (D) 16 to 18 inches

**17.** The semi-arid hilly region is famous for its production: (K.B)  
(A) Plants (B) Flowers (C) Vegetables (D) Fruits

**18.** How many inches of annual rainfall in a humid mountain region: (K.B)  
(A) More than 20 inches (B) More than 30 inches  
(C) More than 40 inches (D) More than 50 inches

**19.** Summer temperatures in the humid mountain region are close to: (K.B)  
(A) 26 C (B) 27 C (C) 28 C (D) 29 C

**20.** Winter temperatures in the humid mountain region are: (K.B)  
(A) 2 C (B) 3 C (C) 4 C (D) Zero C

## MAJOR ENVIRONMENTAL PROBLEMS AND THEIR SOLUTIONS

### LONG QUESTIONS

**Q.1 What is pollution? How does it pollute our environment?**

(Ex. Q No: 6) (U.B+K.B)

**Ans:** ENVIRONMENTAL POLLUTION

A clean environment is essential for the proper development of all living things. As the human population grows. At the same rate, its necessities of life are increasing, which is causing problems such as environmental pollution.

**Definition of Environment:**

“Environment” refers to the area around an organism that affects the life and activities of that organism.

**Impacts on human life:**

The environment, which includes physical characteristics, climate, soil and natural vegetation has a profound effect on human life. All human activities that take place in an area whether economic or political, social or religious, social or economic, natural environment have an effect on these activities.

**Environmental Issues:**

Environmental problems are all the problems that arise when the environment is unfavorable or unsuitable. It harms not only human life but also animal, plant and aquatic life.

**Human Resources and Needs:**

In the beginning of human life, human resources and needs were limited. But as man progressed, his needs increased. It began to use more and more of its natural resources to meet its growing needs.

**Environmental Issues:**

The relentless use of natural resources has not only led to a rapid depletion of resources, but has also affected the environment. In this age of technology, many environmental problems have arisen as a result.

**Major Environmental Hazards:**

Following are some of the key environmental issues facing Pakistan today:

- Pollution
- Deforestation
- Desertification
- Salinity and water logging

**POLLUTION**

**Pollution:**

“The addition of harmful substances into a clean environment that alter its natural state is called pollution.”

In the present age where scientific progress has provided immense facilities for human beings, at the same time it has created some factors which are causing severe damage to the environment. The most important of these is environmental pollution.

**Environmental pollution:**

The entry of something into the environment that is harmful not only to humans but also to other living things is called environmental pollution.

**Types of Environmental Pollution:**

There are three types of environmental pollution:

- Air pollution
- Land pollution
- Water pollution

**AIR POLLUTION**

Clean air is essential for all living things on earth as well as for plants, but in the present era, access to clean air is becoming more and more difficult.

**Definition:**

Air pollution means an increase in the amount of harmful gases in the air, such as carbon dioxide and sulfur oxides.

**Addition of Harmful Gases:**

Harmful gases are rising into the air from factories and vehicles. Due to which gases harmful to the natural environment are increasing.

**Global Warming:**

The depletion of the ozone layer and rising global temperatures (called global warming) are also contributing to environmental pollution, especially air pollution.

**Diseases:**

Air pollution is causing various dangerous diseases such as lungs cancer and various skin diseases.

**Steps:**

- Human development cannot be hampered to reduce air pollution, but steps must be taken to reduce emissions of toxic and harmful gases.
- Use of fuel for vehicles that emit less pollution such as CNG etc.
- Grow as many trees as possible.
- Also install filtration plants in factories and plants.
- In addition, the use of gases that are harmful to the environment should be banned, such as the use of chlorofluorocarbons.

**WATER POLLUTION**

Like air, water is essential for life. Although "three-quarters" of the planet is covered by water, it is estimated that only "three percent" of it is available for human consumption. This water is getting worse day by day.

Water pollution means the presence of various toxic chemicals in the water.

**Causes:**

- Water discharged from factories contains a number of harmful chemicals that form part of rivers, canals and oceans.
- In addition, groundwater is contaminated with a variety of pesticides and chemical fertilizers, which are not only dangerous to human life but also harm plants and aquatic life.

**Prevention of Water Pollution:**

To avoid water pollution, water discharged from factories should be treated with a filtration plant and then discharged into rivers or canals.

**LAND POLLUTION**

Ground pollution refers to the spread of household waste and toxic materials from factories and hospitals on the surface of the earth, which not only harms the beauty of the earth, but also pollutes the environment.

**Solid Waste Management:**

Ground pollution can be eliminated through solid waste management methods, such as burying toxic materials anywhere (or burning them within a certain temperature) and recycling the rest through core cycling. Garbage can also be used to make indigenous fertilizers.

**Q.2 Explain the environmental hazards of water logging and salinity and desertification in the context of Pakistan.** (Ex. Q No: 4) (U.B+K.B)

**Ans:**

**ENVIRONMENTAL PROBLEM OF PAKISTAN****Definition of Environment:**

"Environment is the area around an organism that affects the life and activities of that organism."

**Environmental Issues:**

The environment, which includes physical characteristics, climate, soil and natural vegetation has a profound effect on human life. All human activities that take place in an area whether economic or political, social or religious, social or economic, natural environment have an effect on these activities.

Environmental problems are all the problems that arise when the environment is unfavorable or unsuitable. This harms not only human life but also animal, plant and aquatic life. In this age of technology, many environmental problems have arisen as a result.

**Major Environmental Hazards:**

Following are some of the key environmental issues facing Pakistan today:

- Pollution
- Deforestation
- Desertification
- Salinity and water logging

**DEFORESTATION**

For a temperate climate in any country, 25% of its total area must be covered by forests but our country has only 5% of its area covered by forests and the rate of deforestation has not increased for a long time.

**Forests in Pakistan:**

Forests cover less than 5% of Pakistan's land area. Moreover, the existing forests are being cut down badly. This situation is not only detrimental to our economy but also to our environment.

**Problems of Deforestation:**

- Forests are the only source of oxygen for the planet. Their relentless deforestation is reducing oxygen production.
- The amount of harmful gases in the atmosphere, such as carbon dioxide, is increasing. This not only degrades the environment but also raises the earth's temperature.

This is the reason why climate change is taking place, such as decrease or increase in rainfall, floods, change in the timing of rains, etc., which is adversely affecting our agricultural sector.

**Steps:**

- The main reason for all this is deforestation. Therefore, we should try not only to protect the existing trees but also to plant more forests to prevent climate change.
- Deforestation is also harming wildlife and many species are becoming extinct due to the destruction of their natural habitats.

The earth turns into a desert

**DESERTIFICATION****Definition:**

Human activities, grazing of animals, deforestation and repeated planting of the same crop in the land for one's own needs all combine to make the land barren. It does not maintain the fertility of the land and makes it uncultivable. This whole process of degrading the earth is called desertification.

**Fertile land:**

Allah Almighty has blessed Pakistan with the wealth of fertile land but lack of water is turning this golden land into desert.

**Major Causes:**

Here are some of the main reasons why the earth is turning into a desert:

- Poor and old farming methods in agriculture increase the erosion of the land, which is turning the land into a desert.
- If the crop is planted repeatedly on the same piece of land, the fertility of the land decreases. In a few years, this land will become useless and turn into a desert.
- A lot of water is being wasted in the canal irrigation system. The establishment of more industries has also increased the need for water, creating a shortage of water to irrigate lands.

**SALINITY AND WATER LOGGING**

Pakistan is an agricultural country and our agriculture is heavily depend on canal irrigation. While our agriculture is developing due to canal system and agricultural production is increasing, our agricultural lands are being affected due to canal irrigation system. Groundwater levels are rising due to canal water.

**Salinity:**

When the water level in an area remains at 5.1 meters, the salts present in the earth come to the surface of the water. The water evaporates and the salts remain on the surface of the earth. As a result, the land becomes uncultivable and barren. This situation is called Thor.

**Kullar:**

When the amount of sodium and soluble salts increases in water logged land, this state is called saline.

**Types of Grass:**

Saline affected land can be recovered through cultivation of grass varieties such as Kullar grass, Bermuda grass, Sudan grass, etc. and fodder such as jantar, berseem, lucerne and millat, etc. to produce good yeild from it.

**Water Logging:**

Sometimes the level of underground water gets further elevated and the water passes through the mass of the soil and comes to the surface, thus, the ground becomes swamp. This is called water logging.

In some circumstances, the land even becomes barren and unable to cultivate. Many agricultural lands in Pakistan have lost their productive capacity due to salinity and water logging. These agricultural lands are being made cultivable in the following ways.

**Steps to Control Salinity and Water Logging:**

- Kullar grass is being planted in water logged land to make it cultivable.
- In Pakistan, water channels, rajbahs and canals are being cemented to prevent wastage of water and protect the land from water logging.
- With the desilting of water channels, others programmes like cementing of the water channels and canals have also been launched. It has multiple benefits.
- There is less waste of water on the one hand and there is more water available for irrigation on the other:
- In the areas of salinity, and water logging such trees are being planted that absorb more water through the roots and transfer it into the atmosphere. For this purpose, eucalyptus and poplar trees are planted.

## **PROBLEMS ASSOCIATED WITH THE CONSERVATION STRATEGIES FOR WATER, LAND; NATURAL VEGETATION AND WILDLIFE**

### **LONG QUESTIONS**

**Q.1 Describe the solution of the problems associated with the conservation strategies for water, land, natural vegetation and wild life.** (Ex Q: 5) (K.B+A.B)

**Ans:** **DIFFICULTIES IN THE CONSERVATION OF WATER, LAND,**

#### **NATURAL VEGETATION AND WILDLIFE**

The challenges of protecting water, land, flora and fauna from extinction are described below:

#### **WATER**

Water is a blessing of Allah Almighty but for some time now there has been a shortage of clean water due to which the living beings and plants on earth: are suffering. The reasons for which are as follows.

**Water Pollution:**

Due to lack of resources and lack of proper arrangements, sewage treatment plants are not being installed which is polluting the river and seawater.

**Water Loss:**

One of the reasons for the shortage of irrigation water is the loss of water in the canals. This loss is due to the roughness of the canals.

**Lack of Resources:**

Resources are needed to pave the canals, which is insufficient. Due to lack of resources, dams are not built on the rivers due to which a lot of water goes to the sea every year.

**New Dams:**

There is an urgent need to build new dams to prevent wastage of water.

**Training of Farmer:**

Old and traditional methods of irrigation are also wasting water, for which farmers should be trained.

**EARTH**

The problems facing the land are as follow:

**Elimination of Salinity and Water Logging:**

To save the land, it is necessary to eliminate or reduce water logging and salinity. Tube wells can be installed to do this.

**Lack of Land for Agriculture:**

In Pakistan, deforestation is being done to build residential schemes, factories, motorways and highways, which is constantly depleting the land for agriculture. By limiting these human activities, the land can also be saved.

**Steps:**

- Land can also be saved by destroying piles of garbage lying around.
- Land can also be saved by cultivating new and modern methods.
- The same crops should not be grown on the land again and again so that its fertility is maintained.

**VEGETATION**

The reasons for the decline in vegetation are as follows:

**Causes of Plant Depletion:**

Trees are not only important habitats for animals and birds, but also reduce the effects of floods and storms. Man has started cutting them down to build houses, fuel and roads.

**Steps:**

- There is an urgent need to update existing tree protection laws.
- The future of plants can be secured through the efforts of the state and the community.
- In order to save plants, it is necessary to start awareness programs among the people.
- Trees should not be cut down unnecessarily.
- Protect trees from various diseases.
- Trees can also be saved by controlling environmental pollution.

**WILDLIFE****Illegal Hunting:**

The most serious problem in protecting wildlife in Pakistan is the illegal hunting which should be forbidden.

**Herding:**

The number of pets is increasing and the number of pastures due to herding is decreasing, which is affecting the wildlife.

**Lack of Public Awareness:**

Lack of awareness among the people about this issue is also a problem. Awareness program can increase public awareness.

**Encouragement not to Hunt:**

Wildlife hunters may be encouraged to look for other sources of income instead of hunting wildlife or their trade.

**Human Population:**

The rapid increase in human population is having a detrimental effect on wildlife, so the rapidly growing human population also affects wildlife.

**Less Water Resources:**

Lack of water resources is a problem for wildlife.

**Deforestation:**

Deforestation forces wildlife to migrate to other areas, so deforestation should also be avoided.

**SHORT QUESTIONS**

**Q.1 What is meant by environment?**

(U.B+K.B)

**Ans:**

**ENVIRONEMNT**

“Environment” refers to the area around an organism that is affected by the organism's life and activities.

**Q.2 What are the threats to our environment?**

(U.B+K.B)

**Ans:**

**THREATS TO THE ENVIRONMENT**

Following are some of the key environmental issues facing Pakistan today:

- Pollution
- Deforestation
- Desertification

**Q.3 What is meant by environmental pollution?**

(U.B+K.B)

**Ans:**

**ENVIRONMENTAL POLLUTION**

The entry of something into the environment that is harmful not only to humans but also to other living things is called environmental pollution.

**Q.4 Write the types of environmental pollution?**

(U.B+K.B)

**Ans:**

**TYPES OF ENVIRONMENTAL POLLUTION**

There are three types of environmental pollution:

- Air pollution
- Land pollution
- Water pollution

**Q.5 What meant by global warming?**

(U.B+K.B)

**Ans:**

**GLOBAL WARMING**

Depletion of the ozone layer and rising ground temperatures called global warming. Global warming is causing various dangerous diseases such as lung cancer and various skin diseases.

**Q.6 What steps need to be taken to protect the environment from air pollution? (K.B+A.B)**

**Ans:**

**MEASURES TO REDUCE AIR POLLUTION**

Air pollution can be reduced by the following measures:

- Human development cannot be hampered to reduce air pollution, but steps must be taken to reduce emissions of toxic and harmful gases, such as the use of fuel for vehicles that Spread less pollution such as CNG etc.
- Grow as many trees as possible.
- Also install filtration plants in factories and plants.
- In addition, the use of gases that are harmful to the environment should be banned, such as the use of chlorofluorocarbons.

**Q.7 Write the causes of water pollution?**

(U.B)

**Ans:**

**CAUSES OF WATER POLLUTION**

The causes of water pollution are as follows:

- Water discharged from factories contains a number of harmful chemicals that form part of rivers, canals and oceans.
- In addition, groundwater is contaminated with a variety of pesticides and chemical fertilizers, which are not only dangerous to human life but also harm plants and aquatic life.

**Q.8 Describe two ways to protect water from pollution?**

(K.B+A.B)

**Ans:****WAYS TO PROTECT WATER FROM POLLUTION**

Here are some ways to protect your water from contamination:

- To avoid water contamination, water discharged from factories should be treated with a filtration plant and then discharged into rivers or canals.
- Use indigenous fertilizers instead of chemical fertilizers.

**Q.9 What is meant by land pollution?**

(U.B+K.B)

**Ans:****LAND POLLUTION**

Land pollution refers to the spread of household waste and toxic materials from factories and hospitals on the surface of the earth, which not only harms the beauty of the earth, but also pollutes the environment.

**Q.10 Write down measures to reduce land pollution?**

(K.B+A.B)

**Ans:****SOLID WASTE MANAGEMENT**

Land pollution can be reduced by the following measures:

- Ground pollution can be eliminated by solid waste management methods, such as crushing toxic materials anywhere (or burning them within a certain temperature) and recycling the remaining material through core cycling.
- Garbage can also be used to make compost.

**Q.11 What are the problems caused by deforestation?**

(U.B+K.B)

**Ans:****DEFORESTATION**

Forests are the only source of oxygen on Earth, and their relentless deforestation is reducing oxygen production. In addition, the amount of harmful gases in the atmosphere; such as carbon dioxide, is increasing. This not only degrades the environment but also raises the earth's temperature. That is why climate change is taking place, such as the increase or decrease in rainfall, the onset of floods, the change in the timing of rains, etc., which is badly affecting our agricultural sector.

**Q.12 Write down the two disadvantages of deforestation.**

(U.B)

**Ans:****DISADVANTAGES OF DEFORESTATION**

The disadvantages of deforestation are as follows:

- Forests are very useful in bean and water affected areas as they absorb excess water. Deforestation leads to an increase in water logging and salinity.
- Forests are a natural habitat for wildlife. Beneficial animals are forced to migrate to other areas due to deforestation. And sometimes many precious species are lost.
- Forests are the only source of oxygen on the planet. Their relentless deforestation is reducing oxygen production.

**Q.13 What is meant by reforestation?**

(K.B)

**Ans:****REFORESTATION**

Reforestation refers to the replacement of deforested forests with new ones.

**Q.14 What is meant by desertification?**

(K.B)

**Ans:****DESERTIFICATION**

Human activities, grazing of animals, deforestation and repeated cultivation of the same crop in the land for one's own needs all combine to make the land barren. It does not maintain the fertility of the land and makes it uncultivable. This whole process in which the earth is made ineffective is called desertification of the earth.

**Q.15 Write down the main reasons for desertification.**

(K.B)

**Ans:****THE MAIN CAUSES OF DESERTIFICATION**

Here are some of the main reasons:

- Poor and old farming methods in agriculture increase the erosion of the land, which is turning the land into a desert.
- If crops are grown repeatedly on the same piece of land, the fertility of the land decreases. In a few years, this land will become useless and turn into a desert.
- A lot of water is being wasted in the canal irrigation system. The establishment of more industries has also increased the need for water, creating a shortage of water to irrigate lands.

**Q.16 What is meant by salinity and water logging?**

(K.B)

**Ans:** **SALINITY AND WATER LOGGING****Salinity:**

When the water level in an area is up to 5.1 meter, the soil salts come to the surface with water. The water evaporates and the salts remain on the surface of ground. As a result, the land becomes uncultivable and barren. This state of affairs is called salinity.

**Water Logging:**

Sometimes the level of underground water gets further elevated and the water passes through the mass of the soil and comes to the surface, thus the ground becomes swamp. This is called water logging.

**Q.17 Write a definition of kollar.**

(K.B)

**Ans:****DEFINITION OF KULLAR**

When the amount of sodium and soluble salts increases in water logged land, this state is called saline.

**Q.18 Write the types of grasses has on the kollar.**

(K.B)

**Ans:****TYPES OF GRASS**

Cultivation of grass types such as color grass, Bermuda grass, Sudan grass etc. and fodder such as Jantar, Berseem, Lucerne and Millet etc. in cultivated lands can make the land cultivable as well as good yield.

**Q.19 Write down government measures to control salinity and water logging.**

(K.B+A.B)

**Ans:****GOVERNMENTAL MEASURES**

The government measures to control salinity and water logging are as follow:

- Kullar grass is being planted in water logged land to make it cultivable.
- In Pakistan, water channels, rajbahs and canals are being cemented to prevent wastage of water and protect the land from water logging.
- With the desilting of water channels, others programmes like cementing of the water channels and canals have also been launched. It has multiple benefits.
- There is less waste of water on the one hand and there is more water available for irrigation on the other.
- In the areas of salinity and water logging such trees and being planted that absorb more water through the roots and transfer it into the atmosphere. For this purpose, eucalyptus and poplar trees are planted.

**Q.20 Write a solution to save the earth.**

(K.B+A.B)

**Ans:****SOLUTION TO SAVE THE LAND**

- To save the land, it is necessary to eliminate or reduce water logging and salinity. Tube wells can be installed to do this.
- In Pakistan, deforestation and housing schemes, factories, motorways and highways are being built, which is constantly reducing the land of agriculture. By limiting these human activities, the earth can be saved.
- Land can also be saved by destroying the piles of garbage lying around. Land can also be saved by cultivating it in new and modern ways. The same crops should not be grown on the land again and again so that its fertility is maintained.

**Q.21 Write down plant protection measures.**

(K.B+A.B)

**Ans:****PLANT PROTECTOIN MEASURES**

The following are plant protection measures:

- There is an urgent need to update existing tree protection laws.
- The future of plants can be secured through the efforts of the state and community.
- In order to save plants, it is necessary to start awareness programs among the people.
- Trees can also be saved by controlling environmental pollution.

**Q.22 Write down the reasons for the decline of wildlife.** (U.B+K.B)

**Ans:**

**DECLINE OF WILDLIFE**

- Illegal hunting is one of the most important issues facing wildlife and its conservation in Pakistan, which must be stopped.
- Lack of awareness of the public is also a problem. Awareness programs can increase public awareness.
- Wildlife hunters may be encouraged to look for other sources of income instead of hunting wildlife or their trade.
- Deforestation forces wildlife to migrate to other areas, so deforestation should also be avoided.

**MULTIPLE CHOICE QUESTIONS**

1. **The area around an organism that affects the organism's life and activities is called:** (K.B)  
 (A) Pollution      (B) Climate      (C) Impacts      (D) Environment
2. **Types of environmental pollution are:** (K.B)  
 (A) One      (B) Two      (C) Four      (D) Three
3. **The depletion of the ozone layer and rising temperatures are called:** (K.B)  
 (A) Global Warming      (B) Amazon      (C) Global Warming      (D) Global Threat
4. **The mixture of smoke and fog is called:** (K.B)  
 (A) Smog      (B) Fade      (C) Dust      (D) Smog
5. **What percentage of country's total area should be forested for its development?** (K.B)  
 (A) 18%      (B) 20%      (C) 25%      (D) 5%
6. **What percentage of Pakistan's forest area is:** (K.B)  
 (A) 2%      (B) 3%      (C) 4%      (D) 5%
7. **Replacing deforestation with new forests is called:** (K.B)  
 (A) Deforestation      (B) Modification      (C) Regeneration      (D) Reforestation
8. **The transformation of the earth into a desert is called:** (K.B)  
 (A) Desertification      (B) Dehydration      (C) Deformation      (D) De-tension
9. **When the water level in an area remains, the salts in the soil come to the surface with the water:** (K.B)  
 (A) 5.0m      (B) 5.1m      (C) 5.5 m      (D) 5.8 m
10. **Salinity is planted in water logging saline:** (K.B)  
 (A) Green grass      (B) Kullar grass      (C) Algae      (D) Millet
11. **Due to non-installation of sewage treatment plant, river and seawater are flowing:** (K.B)  
 (A) Contaminated      (B) Fresh      (C) Waste      (D) Harmless
12. **Is it necessary to eliminate or reduce it to save the earth?** (K.B)  
 (A) Population      (B) Water logging and salinity  
 (C) Forest      (D) Water
13. **Can be applied to remove the beans and thorns:** (K.B)  
 (A) Springs      (B) Ditch      (C) Water fall      (D) Tube well
14. **Pastures are declining:** (K.B)  
 (A) From population      (B) From locals  
 (C) From hunting grounds      (D) From herdsmen

**IMPORTANT INFORMATION**

Area of Pakistan	796096 sq. Km
Pakistan covered the total area of the world	0.67%
Mountains and plateaus in Pakistan	58%
Plains and deserts in Pakistan	42%
Durand line	Pak-Afghan border line
The Arabian Sea is part	Indian Ocean
Sea Ports of Pakistan	Karachi, Part Qasim and Gwadar
Southeast Asian countries	Indonesia, Malaysia, Brunel Darussalam
Length of Siachen Glacier	70 km
Length of Baltor Glacier	62 km
The length of the Batura Glacier	54 km
Length of Biafo Glacier	63 km
The river Indus flows out	From the Chinese city of Tibet
Indus River enters Punjab	At Attock
River Ravi	From the mountains of Kashmir
River Ravi in Pakistan	From Lahore
Indus Water Treaty	1960
The Sutlej River	Himalayas
Sutlej River in Punjab	From the place of Sulaymaniyah
Chenab River	Himalayas
Jhelum River enters in Punjab	At Marala
Doaba	The land between the two rivers
The largest lake in Baluchistan	Hamon Mashkhel
Smog	A type of air pollutant that is a mixture of smoke and smoke
Forests in Pakistan	5%
Reforestation	Planting new forests in place of deforests
Increased sodium and soluble salts	Kullar (Salinity)

**ANSWER KEY****LOCATION PAKISTAN**

1	2	3	4	5	6	7	8	9	10	11	12	13
B	A	D	A	B	D	A	D	A	B	D	C	D

**PHYSICAL FEATURES OF PAKISTAN**

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
B	D	B	B	A	D	D	D	D	B	B	D	B	A	D
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
A	C	B	A	C	A	B	A	D	D	D	D	B	A	C

**CLIMATE ON HUMAN LIFE**

1	2	3	4
A	B	D	B

**MAJOR GLACIERS AND RIVERS OF PAKISTAN**

1	2	3	4	5	6	7	8	9
A	D	B	C	D	A	D	B	D

**RIVERS OF PAKISTAN**

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
D	A	D	D	D	C	A	D	C	B	C	B	A	C	D

**CANALS OF PAKISTAN**

1	2	3	4	5	6
D	B	A	C	D	D

**WILDLIFE IN PAKISTAN**

1	2	3	4	5	6
A	A	C	A	B	D

**NATURAL REGIONS OF PAKISTAN**

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
D	C	B	B	A	D	A	C	D	D	A	C	C	C	D
16	17	18	19	20										
C	D	A	A	B										

**MAJOR ENVIRONMENTAL PROBLEMS AND THEIR REMEDIES**

1	2	3	4	5	6	7	8	9	10	11	12	13	14
D	D	C	A	C	D	D	A	B	B	C	B	D	A

### EXERCISE QUESTIONS

1. There are four answers to each question. Mark (✓) the correct answer.
1. In summer Season, the average temperature of plain areas of Pakistan is: (K.B)  
 (A) 20°C      (b) 30°C      (c) 40°C      (d) 50°C
2. The total area of Pakistan is: (K.B)  
 (A) 670570 sq km.      (b) 796096 sq km.      (c) 755096 sq km.      (d) 79065 sqkm.
3. K-2 Mountain is located in: (K.B)  
 (A) Himalayas      (b) Koh-e-Karakoram (c) Koh-e-Sufaid      (d) Koh-e-Hindukush
4. Out of the total area for the development of any country, the percentage or area for forestation should be: (K.B)  
 (A) 15%      (b) 25%      (c) 35%      (d) 45%
5. The height of Nanga Parbat is: (K.B)  
 (A) 7690 m      (b) 8126 m      (c) 8792 m      (d) 6790 m
6. Karachi is the largest city in Pakistan, it is famous for: (K.B)  
 (A) Agriculture      (b) Mining      (c) Industry      (d) Rearing

### ANSWERS TO MULTIPLE CHOICE QUESTIONS

1	2	3	4	5	6
C	B	B	B	B	C

**2. Fill in the blank.**

1. Pakistan has \_\_\_\_\_ in the north. (China)
2. Siachen is word of \_\_\_\_\_ language which means \_\_\_\_\_. (Balti, wild rose)
3. River \_\_\_\_\_ is the longest river in Pakistan. (Sindh)
4. Forests cover only \_\_\_\_\_ % of the total area in Pakistan. (5)
5. Smog is mixture of fog and \_\_\_\_\_. (Smoke)

**3. Give short answers.**

**1. Define the term location.** (U.B+K.B)

**Ans:**

#### LOCATION OF PAKISTAN

Pakistan is situated in the continent of Asia. It is an important country of South Asia. The total area of Pakistan is 796096 square kilometers, which is 0.67% of the total area of the world. About 58% of the total land of Pakistan consists of mountains and plateaus, while about 42% area is covered by plains and deserts.

**2. Name the four natural region of Pakistan. (K.B)**

**Ans:**

#### NATURAL REGIONS OF PAKISTAN

Name of the four natural region of Pakistan are as follow:

- Plain Region
- Desert Region
- Coastal Region
- Humid & Sub Humid Mountain Region

**3. Define Water Logging and Salinity? (K.B)**

**Ans:**

#### WATER LOGGING AND SALINITY

##### Waterlogging

When the water level in an area is up to 5.1 metre, the soil salts come to the surface with water. The water evaporates and the salts remain on the surface of ground. As a result, the land becomes uncultivable and barren. This state of affairs is called water logging.

##### Salinity:

When the amount of sodium and soluble salts increases in water logged land, this state is called saline.

**4. Explain the two benefits of forests?**

(U.B)

**Ans:****BENEFITS OF FORESTS**

The benefits of forestry are as follows:

- Forests wood is used for making furniture or other items. Therefore forests are important for country's trade.
- Forests make the climate of any area pleasant. Reduce the intensity of the temperature.

**5. Write the names of three glaciers found in Pakistan.**

(K.B)

**Ans:****GLACIERS FOUND IN PAKISTAN**

- Siachen Glacier
- Baltor and Glacier
- Hasper Glacier

**6. Describe two ways to protect water from pollution?**

(K.B+A.B)

**Ans:****WAYS TO PROTECT WATER FROM POLLUTION**

Here are some ways to protect your water from contamination:

To avoid water contamination, water discharged from factories should be treated with a filtration plant and then discharged into rivers or canals.

Use indigenous fertilizers instead of chemical fertilizers.

**7. Define the term & desertification.**

(K.B)

**Ans.****DESERTIFICATION**

Human activities, grazing of cattle, cutting of trees from forest and growing the same crop repeatedly in the soil, all together make the land barren, in fertile and uncultivable. All this process of defacing the land is called desertification.

**8. Name the types of canals in Pakistan.**

(K.B)

**Ans.****CANALS OF PAKISTAN**

There are four types of canals in Pakistan.

- Flood Canals
- Perennial Canals
- Non-Perennial Canals
- Link Canals

**9. What kind of climate change is occurring due to rising earth temperature?**

(U.B)

**Ans.****CLIMATE CHANGE**

The depletion of ozone layer and raising earth temperature called global warming. In addition, it is cause of various diseases, such as lung cancer and skin diseases etc. Climate change accruing by way of decrease in rainfall and excessive increasing in rainfall, floods and change in period of rainfall, etc. which is adversely affecting our agricultural sector.

**10. Write down the two disadvantages of deforestation.**

(U.B)

**Ans:****DISADVANTAGES OF DEFORESTATION**

The disadvantages of deforestation are as follows:

Forests are very useful in bean and water affected areas as they absorb excess water. Deforestation leads to an increase in bean sprouts.

Forests are a natural habitat for wildlife. Beneficial animals are forced to migrate to other areas due to deforestation. And sometimes many precious species are lost.

Forests are the only source of oxygen on the planet. Their relentless deforestation is reducing oxygen production.

**4. Combine columns A and B and write the correct answer in column C.**

Columns (a)	Columns (b)	Columns (c)
China, Pakistan	Carbon Dioxide, Sulfur	Economic Corridor
Air Pollution	Economic Corridor	Carbon Dioxide, Sulfur
Gwadar	Mangla Dam	Baluchistan
Jhelum River	Baluchistan	Mangla Dam

**5. Write detailed answers to the following questions.**

**1. Describe the location of Pakistan and its significance.**

**Ans:** See Detailed Question No. 1, entitled "Location of Pakistan".

**2. Explain the physical features of Pakistan.**

**Ans:** See Detailed Question No. 1, entitled "Physical Features of Pakistan".

**3. In how many climatic regions is Pakistan divided? Write down the detail of each region and elaborate how climate affects the human life.**

**Ans:** See Detailed Question No. 1, entitled "Climatic region and impacts of human life".

**4. Explain the environmental hazards of water logging and salinity and desertification in the context of Pakistan.**

**Ans:** See Detailed Question No. 1, entitled "Major Environmental Hazards".

**5. Describe the solutions of the problems associated with the conservation strategies for water, land, natural vegetation and wild life.**

**Ans:** See Detailed Question No. 1, entitled "Problems Associated with water, Land, Vegetation and Wildlife".

**6. What is pollution? How does it pollute our environment?**

**Ans:** See Detailed Question No. 1, entitled "Environmental Pollution".

**7. Discuss the types of forests, their importance and protection.**

**Ans:** See Detailed Question No. 1, entitled "Forests".

### **Activity**

Ask the students to prepare charts on the tips for preventing various types of pollution and display them in the classroom.

### **Instructions for teachers**

Familiarise the students with the benefits of textile, electrical equipment, sports equipment, sugar industry, leather industry and cutlery industries etc.

**SELF TEST****Total marks: 25****Time: 40 Minutes****OBJECTIVE TYPE****Q1: Tick (✓) the correct answer:  $7 \times 1 = 7$** **1. In summer Seasons, the average temperature of plain areas of Pakistan is:**

- (A) 20°C                    (B) 30°C                    (C) 40°C                    (D) 50°C

**2. The total area of Pakistan is:**

- (A) 670570SKM.            (B) 796096SKM.            (C) 755096SKM.            (D) 79065SKM.

**3. K-2 Mountain is located in:**

- (A) Himalayas              (B) Koh-e-Karakoram (C) Koh-e-Sufaid              (D) Koh-e-Hindukush

**4. In the east of Pakistan is:**

- (A) China                    (B) India                    (C) Iran                    (D) Afghanistan

**5. The height of Nanga Parbat is:**

- (A) 7690m                    (B) 8126m                    (C) 8792m                    (D) 6790m

**6. The highest plateau of Baluchistan is:**

- (A) 900m                    (B) 800m                    (C) 700m                    (D) 600m

**7. In the sub-continent, the British Government built a state-of the-art canal system:**

- (A) 20<sup>th</sup> century            (B) 18<sup>th</sup> century            (C) 17<sup>th</sup> century            (D) 19<sup>th</sup> century

**SUBJECTIVE TYPE****PART-1****Q2: Give short Answers.  $5 \times 2 = 10$** 

1. Define the term location.
2. Name the four natural region of Pakistan.
3. Define waterlogging and salinity?
4. Define the term and desertification.
5. Write down the two disadvantages of deforestation.

**PART-2****Q3: Give detailed Answers.  $8 \times 1 = 8$** 

What is pollution? How does it pollute our environment?