Practical Work in Geography Class 11 Solutions Chapter 5 Topographical Maps

Class 11 Practical Work in Geography Chapter 5 NCERT Textbook Questions Solved

1. Answer the following questions in about 30 words.

Question 1(i).
What are topographical maps?
Answer:
These are also known as general purpose maps. These are drawn at relatively large scales. These maps show important natural and cultural features such as relief, vegetation, water bodies, cultivated land, settlements, and transportation networks, etc. In other words, it is a map of a small area drawn on a large scale depicting detailed surface features both natural and man made. Relief in this map is shown by contours.

Question 1(ii).
Name the organisation which prepares the topographical maps of India.
Answer:
Topographical maps under India and Adjacent Countries Series were prepared by the Survey of India till the coming into existence of Delhi Survey Conference in 1937. Since then the preparation of maps for the adjoining countries was abandoned and the Survey of India confined itself to prepare and publish the topographical maps for India as per the specifications laid down for the International Map Series of the World.

Question 1(iii).
Which are the commonly used scales for mapping our country used by the Survey of India?
Answer:
The topographical maps of India are prepared on 1 : 10,00,000, 1 : 250,000, 1:1,25,000,1:50,000 and 1:25,000 scale providing a latitudinal and longitudinal coverage of 4° x 4°, 1° x 1°, 30′ x 30′, 15′ x 15′ and 5′ x 7′ 30″, respectively.

Question 1(iv).
What are contours?
Answer:
Contours are imaginary lines joining places having the same elevation above mean sea level. In other words, these are imaginary lines joining all the points of equal elevation or altitude above mean sea level. They are also called “level lines”. A map showing the landform of an area by contours is called a contour map. The method of showing relief features through contour is very useful and versatile. The contour lines on a map provide a useful insight into the topography of an area.

Question 1(v).
What does the spacing of contours indicate?
Answer:
Spacing in the contours represent slope.

- Closely spaced contours represent steep slopes.
- Widely spaced contours represent gentle slope.

Question 1(vi).
What are conventional signs?
Answer:
There are some internally determined standard symbols, signs and colours which are used to depict settlements, buildings, roads and railways are important cultural features shown on topographical sheets. When these features are exhibited through conventional signs, symbols and colours, it becomes easy to understand and interpret the map. Conventional signs and symbols are internationally accepted so that anyone can read any map anywhere in the world without knowing the language of that particular country.

2. Write short notes on-
Question 2(i)
Contours
Answer:
Some basic features of contour lines are:

- A contour line is drawn to show places of equal heights.
- Contour lines and their shapes represent the height and slope or gradient of the landform.
- Closely spaced contours represent steep slopes while widely spaced contours represent gentle slope.
- When two or more contour lines merge with each other, they represent features of vertical slopes such as cliffs or waterfalls.
- Two contours of different elevation usually do not cross each other.

Question 2(ii).
'Marginal Information' in Topographical sheets
Answer:
Marginal Information: It includes the topographical sheet number, its location, grid references, its extent in degrees and minutes, scale, the districts covered, etc. In other words, it provides information related to what exactly a topographical sheet is showing. Without this marginal information, it is not possible to derive any meaning from a topographical sheet.

Question 2(iii).
The Survey of India
Answer:
The Survey of India prepares the topographical maps in India for the entire country. Topographical maps under India and Adjacent Countries Series were prepared by the

Survey of India till the coming into existence of Delhi Survey Conference in 1937. Henceforth, the preparation of maps for the adjoining countries was abandoned and the Survey of India confined itself to prepare and publish the topographical maps for India as per the specifications laid down for the International Map Series of the World.

3. Explain what is meant by 'map interpretation' and what procedure is followed for its interpretation.
Answer:
Map interpretation involves the study of factors that explain the causal relationship among several features shown on the map. For example, the distribution of natural vegetation and cultivated land can be better understood against the background of landform and drainage. Likewise, the distribution of settlements can be examined in association with the levels of transport network system and the nature of topography.

Deriving accurate meanings from maps is called map interpretation. Knowledge of map language and sense of direction are essential in reading and interpreting topo-sheets. We must first look for the northline and the scale of the map and orient ourselves accordingly. We must have a thorough knowledge of the legends / key given in the map depicting various features. All topo-sheets contain a table showing conventional signs and symbols used in the map. We must be acquainted with conventional symbols, signs and colours.

The following procedure is followed in map interpretation:

- Finding from the index number of the topographical sheet, the location of the area in India. This would give an idea of the general characteristics of the major and minor physiographic divisions of the area.
- Find the scale of the map and the contour interval, which will give the extent and general landform of the area.
- Find the following features on tracing sheets.
    - Major landforms – as shown by contours and other graphical features.
    - Drainage and water features – the main river and its important tributaries.
    - Land use – i.e. forest, agricultural land, wastes, sanctuary, park, school, etc.
    - Settlement and Transport pattern.
- Explain the distributional pattern of each of the features separately drawing attention to the most important aspect.
- Superimpose pairs of these maps and note down the relationship, if any, between the two patterns. For example, if a contour map is superimposed over a land-use map, it provides the relationship between the degree of slope and the type of land used.
- Aerial photographs and satellite imageries of the same area and of the same scale can also be compared with the topographical map to update the information.

4. If you are interpreting the cultural features from a topographical sheet, what information would you like to seek and how would you derive this information? Discuss with the help of suitable examples.
Answer:
Settlements, buildings, roads and railways are important cultural features shown on

topographical sheets through conventional signs, symbols and colours. The location and pattern of distribution of different features help in understanding the area shown on the map. Distribution of Settlements can be seen in the map through its site, location pattern, alignment and density.

The nature and causes of various settlement patterns may be clearly understood by comparing the settlement map with the contour map. Transport And Communication Pattern Relief, population, size and resource development pattern of an area directly influence the means of transport and communication and their density. These are depicted through conventional signs and symbols. Means of transport and communication provide useful information about the area shown on the map.

Settlements, occupation, means of communication and transportation, land use pattern are some of the cultural features which are shown on topographical sheet using conventional signs, colours and symbols. We need to collect information for all of these we may get all this information through Survey of India. The means of transportation include national or state highways, district roads, cart tracks, camel tracks, footpaths, railways, waterways, major communication lines, post offices, etc. Settlements are studied under the two heads: Rural Settlements and Urban Settlements.

The general occupation of the people of the area may be identified with the help of land use and the type of settlement. For example, in rural areas the main occupation of the majority of the people is agriculture; in tribal regions, lumbering and primitive agriculture dominates and in coastal areas, fishing is practised. Similarly, in cities and towns, services and businesses appear to be the major occupations of the people.

5. Draw the conventional signs and symbols for the following features—

1. International Boundary
2. BenchMark
3. Villages
4. Metalled Road
5. Footpath with bridges
6. Places of Worship
7. Railway line.

Answer:

(i) International Boundary — ----------

(ii) Bench Mark — BM 63.3

(iii) Villages —

(iv) Metalled Road —

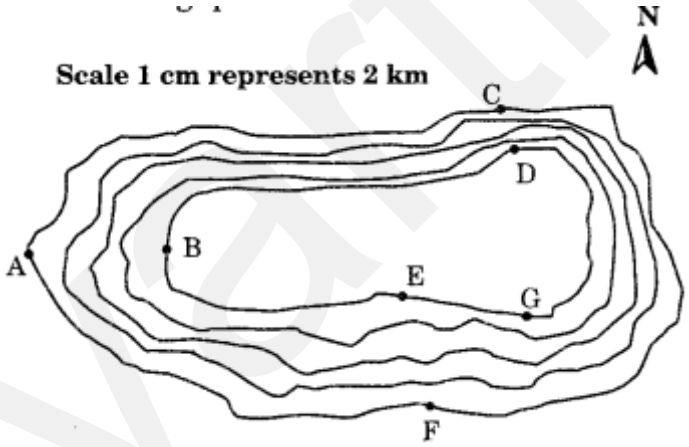
(v) Footpath with bridges —

(vi) Places of Worship — Temple, Church, Mosque, Idgaha

(vii) Railway line —

EXERCISE A

Study the contour pattern and answer the following questions.



1. Name the geographical feature formed by contours.
Answer:
Plateau

2. Find out the contour interval in the map.
Answer:
100 metre

3. Find out the map distance between E and F and convert it into ground distance.
Answer:
2 cm = 4 km on the ground

4. Name the type of slope between A and B; C and D and E and F.
Answer:
A and B Gentle Slope
C and D Steep Slope
E and F Gentle Slope

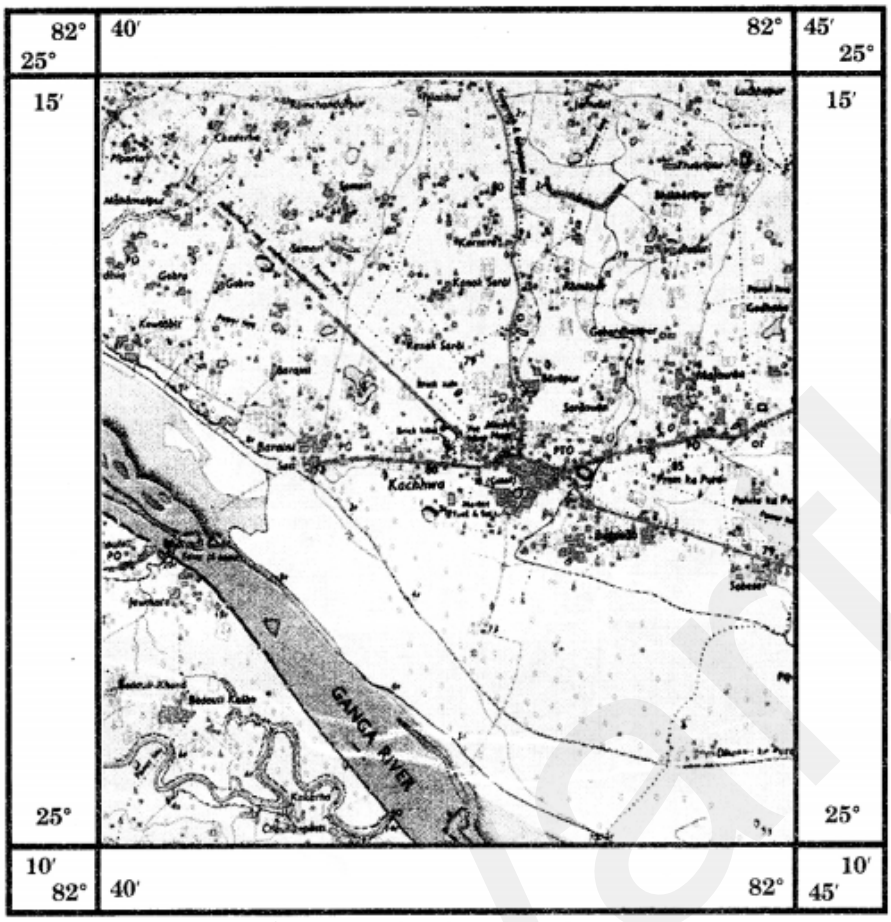
5. find out the direction of E, D and F from G.
Answer:
From G, E is in west, D is in North and F is in South directions.

EXERCISE B

Study the extract from the topographical sheet No. 63K/12. as shown in the figure below and answer the following questions.

Uttar Pradesh

Mirzapur and Varanasi District **Part of 63K/12**



R.F. 1 : 50,000

1. Convert 1:50,000 into a statement of scale.
Answer:
1 cm on map is showing 50000 cm on ground.

2. Name the major settlements of the area.
Answer:
Kachhwa, Prem Ka Pura, Bhatauli, Bahraini.

3. What is the direction of flow of the river Ganga?
Answer:
Direction of flow of river Ganga is from North west to south east.

4. At which one of the banks of river Ganga, Bhatauli is located?
Answer:
It is located in the middle of Ganga river.

5. What is the pattern of rural settlemen ts along the right bank of river Ganga?
Answer:
Compact pattern of rural settlements is seen along the right bank of river Ganga.

6. Name the villages/settlements where Post Office/Post and Telegraph Office are located?
Answer:

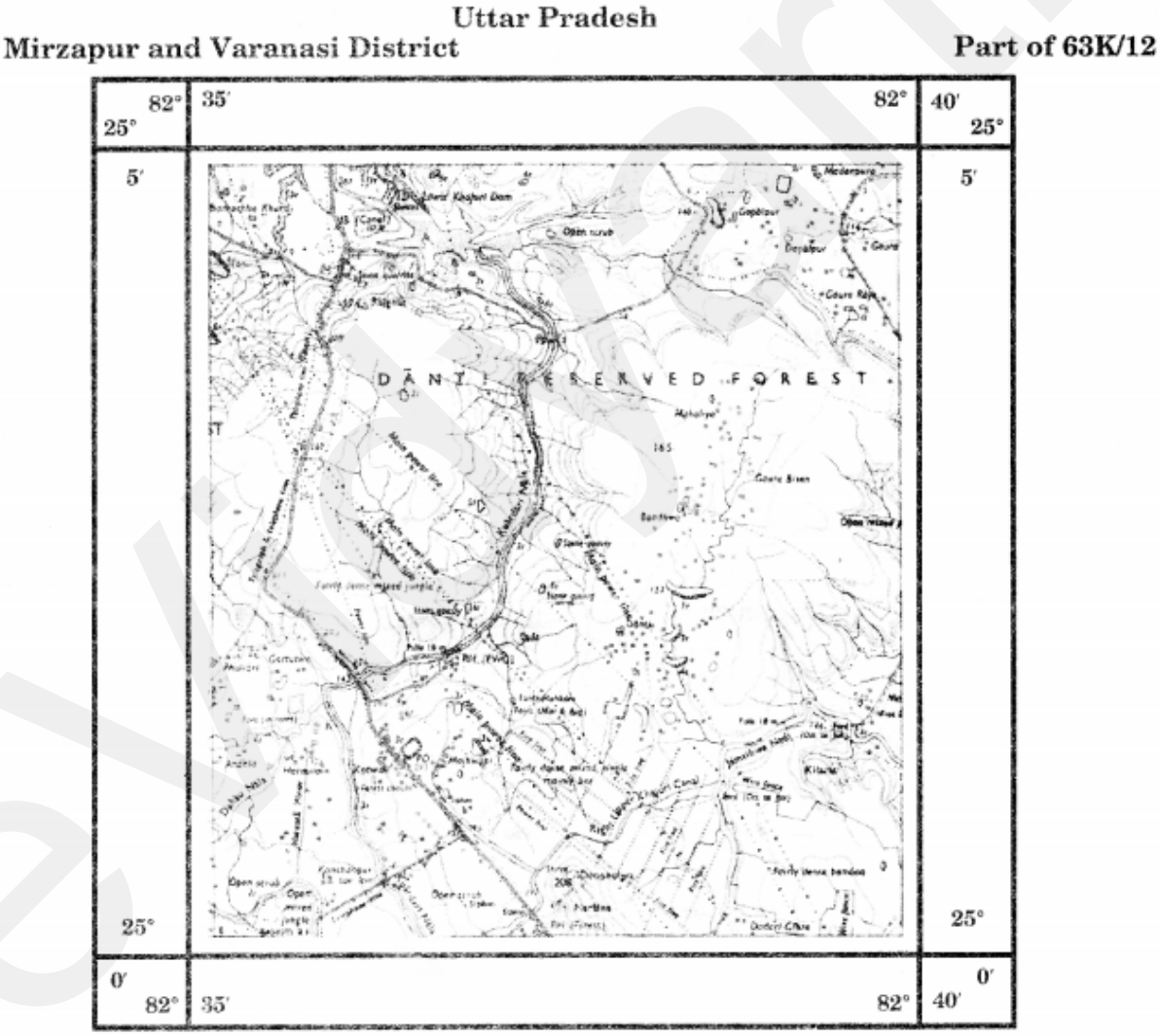
Villages indicating PO, and PTO have post office or post and telegraph office.

7. What does the yellow colour in the area refer to?
Answer:
Yellow colour in the area refers to plains.

8. What means of transportation is used to cross the river by the people of Bhatauli village ?
Answer:
Boats used to cross the river by the people of Bhatauli village.

EXERCISE C

Study the extract for topographical sheet 63K/12 shown in the figure given below and answer the following questions.



1. Give the height of the highest point on the map.
Answer:
208 metres.

2. River Janitihwa Nadi is flowing through which quarter of the mapo
Answer:
River Jamtihwa Nadi is flowing through south east quarter of the map.

3. Which is the major settlement located in the east of the Kuardari Nala?
Answer:
Bandhwa settlement is located in the east of the Kuardari Nala.

4. What type of settlement does this area have?
Answer:
Linear settlements are there in this area. ;

5. Name the geographical feature represented by white patches in the middle of Sipiu Nadi.
Answer:
It is showing plains.

6. N ame the two types of vegetation shown on part of the topographical sheet.
Answer:
Tropical deciduous vegetation.

7. Vdhat is the direction of the flow of the Kuardari?
Answer:
It is flowing from South to North.

8. In which part of the sheet area is Lower Khajuri Dam located?
Answer:
In Southern part of the sheet Lower Khajuri Dam is located.

Class 11 Practical Work in Geography Chapter 5 NCERT Extra Questions

Class 11 Practical Work in Geography Chapter 5 Multiple Choice Questions

Question 1.
Which of the following is not a type of j settlements?
(a) Compact
(b) Dispersed
(c) Linear
(d) Polar.
Answer:
(d) Polar

Question 2.
Which of the following is not a type of urban towns?
(a) Mountain towns
(b) Capital towns
(c) Beauty towns

(d) Religious towns.
Answer:
(c) Beauty towns

Question 3.
A widely stretched flat-topped high land, with relatively steeper slopes, rising above the adjoining plain or sea is called a:
(a) Mountain
(b) Valley
(c) Spur
(d) Plateau.
Answer:
(d) Plateau

Question 4.
A sudden and more or less perpendicular descent of water from a considerable height in the bed of a river is called a:
(a) Spur
(b) Valley
(c) Waterfall
(d) Plateau.
Answer:
(c) Waterfall

Question 5.
A tongue of land, projecting from higher ground into the lower is called a:
(a) Spur
(b) Valley
(c) Waterfall
(d) Plateau.
Answer:
(a) Spur.

Class 11 Practical Work in Geography Chapter 5 Very Short Answer Type Questions

Question 1.
How are relief maps different from topographical maps?
Answer:

Topographical Maps	Relief Maps
These maps show important natural and cultural features such as relief, vegetation, water bodies, cultivated land, settlements, and transportation networks, etc.	The earth's surface is not uniform and it varies from mountains to hills to plateaus and plains. The elevation and depressions of the earth's surface are known as physical features or relief features of the earth. The map showing these features is called a relief map.

These are called general purpose maps.	These are called Specific Purpose Maps.
These are drawn on relatively larger scale.	These are drawn on relatively smaller scale.

Question 2.
What methods are used to present topography?
Answer:
A number of methods have been used to show the relief features of the Earth's surface on maps, over the years. These methods include hachure, hill shading, layer tints, benchmarks and spot heights and contours. However, contours and spot heights are predominantly used to depict the relief of an area on all topographical maps.

Question 3.
What are Hachure?
Answer:
Small straight lines drawn on the map along the direction of maximum slope, running across the contours. They give an idea about the differences in the slope of the ground.

Question 4.
Define Contour lines.
Answer:
These are imaginary lines joining all the points of equal elevation or altitude above mean sea level. They are also called "level lines".

Question 5.
Differentiate between vertical interval and horizontal distance.
Answer:

Basis	Vertical Interval	Horizontal Distance
Meaning	Interval between two successive contours is called vertical interval.	The horizontal distance is the distance between two contours horizontally.
Change	The vertical interval between the two successive contour lines remains constant.	It varies from place to place depending upon the nature of slope. It is large when the slope is gentler and decreases with increasing slope gradient.
Expression	It is expressed as VT.	The horizontal distance, also known as the horizontal equivalent (HE).

Question 6.
What is a Topographic Map?
Answer:
A map of a small area drawn on a large scale depicting detailed surface features both natural and man-made. Relief in this map is shown by contours.

Question 7.
Explain different types of settlements shown on a topographical sheet.
Answer:
Four types of rural settlements may be identified on the map
(a) Compact
(b) Scattered
(c) Linear
(d) Circular.

Urban settlements are distinguished as

- Cross-road town
- Nodal point
- Market centre
- Hill station
- Coastal resort centre
- Port
- Manufacturing centre with suburban villages or satellite towns
- Capital town
- Religious centre.

Question 8.
How is density of settlement related to food supply?
Answer:
Density of settlement is directly related to food supply.

Question 9.
What are linear settlements?
Answer:
Sometimes, village settlements form alignments, i.e. they are spread along a river valley, road, embankment, coastline – these are called linear settlements.

Class 11 Practical Work in Geography Chapter 5 Short Answer Type Questions

Question 1.
What are the features of contours?
Answer:
Some basic features of contour lines are:

- A contour line is drawn to show places of equal heights.
- Contour lines and their shapes represent the height and slope or gradient of the landform.
- Space between contour lines represents slope. Closely spaced contours represent steep slopes while widely spaced contours represent gentle slope.
- When two or more contour lines merge with each other, they represent features of vertical slopes such as cliffs or waterfalls.
- Two contours of different elevation usually do not cross each other.

Question 2.
Explain how do we interpret a topographical sheet?
Answer:
It is essential to have knowledge of map language and sense of direction are essential in reading and interpreting topo-sheets. We must first look for the northline and the scale of the map and orient ourselves accordingly. We must have a thorough knowledge of the legends / key given in the map depicting various features. All topo-sheets contain a table showing conventional signs and symbols used in the map. We must be acquainted with conventional symbols, signs and colours.

Question 3.
Under which heads is a topographical sheet interpreted? Explain each in short.
Answer:
A topographic sheet is usually interpreted under the following way:

- Marginal Information: It includes the topographical sheet number, its location, grid references, its extent in degrees and minutes, scale, the districts covered, etc.
- Relief of the Area: The general topography of the area is studied to identify different landforms along with peaks, ridges, spur and the general direction of the slope.
- Drainage of the Area: We also need to interpret the important rivers and their tributaries and the type and extent of valleys formed by them, the types of drainage pattern, i.e. dendritic, radial, ring, trellis, internal, etc.
- Land Use: It includes the use of land under different categories like Natural vegetation and forest which part of the area is forested, whether it is dense forest or thin, and the categories of the forest found there like Reserved, Protected, Classified / Unclassified.
- Transport and Communication: The means of transportation include national or state highways, districts roads, cart tracks, camel tracks, footpaths, railways, waterways, major communication lines, post offices, etc. topographical sheet presents each of these.
- Settlement: Settlements are studied under rural settlements and urban settlements.
- Occupation: The general occupation of the people of the area may be identified with the help of land use and the type of settlement.

Question 4.
What factors determine the site of settlements?
Answer:
Various factors determine the site of settlements like

- Source of water
- Provision of food
- Nature of relief
- Nature and character of occupation
- Defence.

Question 5.
Write a short note on map interpretation.
Answer:
Map interpretation involves the study of factors that explain the causal relationship among several features shown on the map. For example, the distribution of natural vegetation and cultivated land can be better understood against the background of landform and drainage. Likewise, the distribution of settlements can be examined in association with the levels of transport network system and the nature of topography.

Class 11 Practical Work in Geography Chapter 5 Long Answer Type Questions

Question 1.
Explain the steps involved in drawing, a Cross-section from their contours in different topographical landforms.
Answer:
The following steps may be followed to draw cross-sections of various relief features from their contours:

- Draw a straight line cutting across the contours on the map and mark it as XY.
- Take a strip of white paper or graph and place its edge along the XY line.
- Mark the position and value of every contour that cuts the line XY.
- Choose a suitable vertical scale, e.g. V2 cm =100 metres, to draw horizontal lines parallel to each other and equal to the length of XY. The number of such lines should be equal or more than the total contour lines.
- Label the appropriate values corresponding to the contour values along the vertical of the cross-section. The numbering may be started with the lowest value represented by the contours.
- Place the edge of the marked paper along the horizontal line at the bottom line of the cross-section in such a way that XY of the paper corresponds to the XY of the map and mark the contour points.
- Draw perpendiculars from XY line, intersecting contour lines, to the corresponding line at the cross-section base.
- Smoothly join all the points marked on different lines at the cross-section base.

Question 2.
Under which heads are topographical maps explained?
Answer:
A topographic sheet is usually interpreted in the following way:

- Marginal Information: It includes the topographical sheet number, its location, grid references, its extent in degrees and minutes, scale, the districts covered, etc.

- Relief of the Area: The general topography of the area is studied to identify different landforms along with peaks, ridges, spur and the general direction of the slope. These features are studied under the following heads:
    - Hill: With concave, convex, steep or gentle slope and shape.
    - Plateau: Whether it is broad, narrow, flat, undulating or dissected.
    - Plain: Its types, i.e. alluvial, glacial, karst, poastal, marshy, etc.
    - Mountain: General elevation, peak, passes, etc.
- Drainage of the Area: We also need to interpret the important rivers and their tributaries and the type and extent of valleys formed by them, the types of drainage pattern, i.e. dendritic, radial, ring, trellis, internal, etc.
- Land Use: It includes the use of land under different categories like Natural vegetation and forest, which part of the area is forested, whether it is dense forest or thin, and the categories of forest found there like Reserved, Protected, Classified / Unclassified.
- Transport and Communication: The means of transportation include national or state highways, district roads, cart tracks, camel tracks, footpaths, railways, waterways, major communication lines, post offices, etc. topographical sheet presents each of these.
- Settlement: Settlements are studied under the following heads:
    - Rural Settlements: The types and patterns of rural settlements, i.e. compact, semi-compact, dispersed, linear, etc.
    - Urban Settlements: Type of urban settlements and their functions, i.e. capital cities, administrative towns, religious towns, port towns, hill stations, etc.
- Occupation: The general occupation of the people of the area may be identified with the help of land use and the type of settlement. For example, in rural areas the main occupation of majority of the people is agriculture; in tribal regions, lumbering and primitive agriculture dominates and in coastal areas, fishing is practised. Similarly, in cities and towns, services and business appear to be the major occupations of the people.

Question 3.
Explain about identification of cultural features from topographical sheets
Answer:
Settlements, buildings, roads and railways are important cultural features shown on topographical sheets through conventional signs, symbols and colours. The location and pattern of distribution of different features help in understanding the area shown on the map.
Types of Settlements: Four types of rural settlements may be identified on the map:

1. Compact
2. Scattered
3. Linear
4. Circular

Urban centres are distinguished as:

- Cross-road town

- Nodal point
- Market centre
- Hill station
- Coastal resort centre
- Port
- Manufacturing centre with suburban villages or satellite towns
- Capital town
- Religious centre

Site of settlements:
It should be closely examined with reference to the contour and drainage map. Density of settlement is directly related to food supply. Sometimes, village settlements form alignments, i.e. they are spread along a river valley, road, embankment, coastline – these are called linear settlements. In the case of an urban settlement, a cross-road town assumes a fan-shaped pattern, the houses being arranged along the roadside and the crossing being at the heart of the town and the main market place. In a nodal town, the roads radiate in all directions.

Transport and Communication Pattern:
Relief, population, size and resource development pattern of an area directly influence the means of transport and communication and their density. These are depicted through conventional signs and symbols. Means of transport and communication provide useful information about the area shown on the map.

Class 11 Practical Work in Geography Chapter 4 Viva Questions

Question 1.
What is the purpose of topographical maps?
Answer:
They serve the purpose of base maps and
are used to draw all the other maps.

Question 2.
Who prepares the topographical maps in India for the entire country?
Answer:
The Survey of India prepares the topographical maps in India for the entire country.

Question 3.
What are relief features of the earth? Answer: The elevation and depressions of the earth's surface are known as physical features or relief features of the earth.

Question 4.
Name some of the methods used to depict relief features of the earth. Which of these are most common?
Answer:
A number of methods have been used to show the relief features of the Earth's surface on

maps, over the years. These methods include hachure, hill shading,' layer tints, benchmarks and spot heights and contours. However, contours and spot heights are predominantly used to depict the relief of an area on all topographical maps.

Question 5.
Name the slope if contours show following features:

- Contours in this type of slope are widely spaced in the lower parts and are closely spaced in the upper parts.
- The contours are widely spaced in the upper parts and are closely spaced in the lower parts.
- The contours representing this type of slope are far apart.
- The contours are closely spaced Answer:
    - Concave Slope
    - Convex Slope
    - Gentle Slope
    - Steep Slope.

Topographical Maps Notes

- Topographical maps which are also known as general purpose maps, are drawn at relatively large scales. These maps show important natural and cultural features such as relief, vegetation, water bodies, cultivated land, settlements, and transportation networks, etc. They serve the purpose of base maps and are used to draw all the other maps.
- These maps are prepared and published by the National Mapping Organisation of each countiy. For example, the Survey of India prepares the topographical maps in India for the entire country.

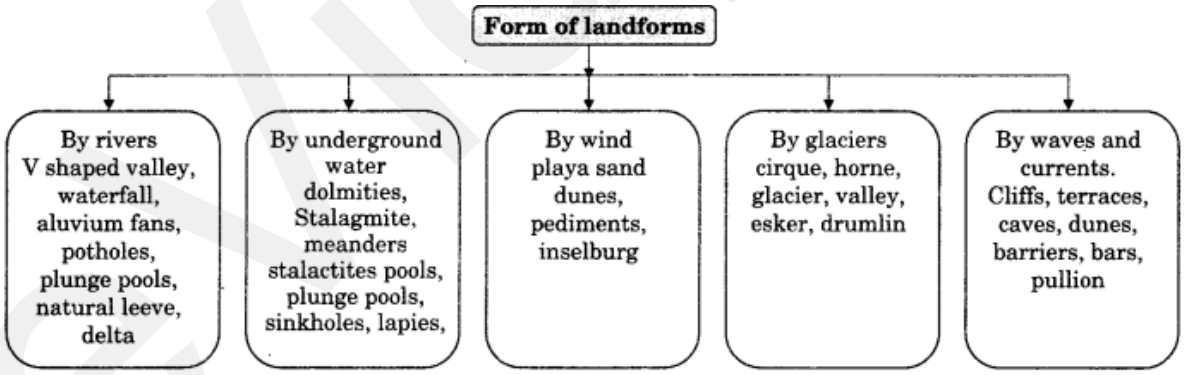


Fig. Landforms

- The topographical maps are drawn in the form of series of maps at different scales. Hence, in the given series, all maps employ the same reference point, scale, projection, conventional signs, symbols and colours.
- The topographical maps in India are prepared in two series, i.e. India and Adjacent Countries Series and The International Map Series of the World.

- Topographical maps under India and Adjacent Countries Series were prepared by the Survey of India till the coming into existence of Delhi Survey Conference in 1937. Henceforth, the preparation of maps for the adjoining countries was abandoned and the Survey of India confined itself to prepare and publish the topographical maps for India as per the specifications laid down for the International Map Series of the World.
- The topographical maps of India are prepared on 1 : 10,00,000, 1 : 250,000, 1 : 1,25,000, 1 : 50,000 and 1: 25,000 scale providing a latitudinal and longitudinal coverage of 4° x 4°, 1° x 1°, 30′ x 30′, 15′ x 15′ and 5′ x 7′ 30″, respectively.
- A number of methods have been used to show the relief features of the Earth's surface on maps, over the years. These methods include hachure, hill shading, layer tints, benchmarks and spot heights and contours. However, contours and spot heights are predominantly used to depict the relief of an area on all topographical maps.
- The contour lines on a map provide a useful insight into the topography of an area. Earlier, ground surveys and levelling methods were used to draw contours on topographical maps. However, the invention of photography and subsequent use of aerial photography have replaced the conventional methods of surveying, levelling and mapping.
- The slopes can broadly be classified into gentle, steep, concave, convex and irregular or undulating. The contours of different types of slopes show a distinct spacing pattern.
- When two or more contour lines merge with each other, they represent features of vertical slopes such as cliffs or waterfalls. Two contours of different elevation usually do not cross each other.
- All the topographical features show varying degrees of slopes. For example, a flat plain exhibits gentler slope and the cliffs and gorges are associated with the steep slopes. Similarly,valleys and mountain ranges are also characterised by the varying degree of slopes, i.e. steep to gentle. Hence, the spacing of contours is significant since it indicates the slope.
- Settlements, buildings, roads and railways are important cultural features shown on topographical sheets through conventional signs, symbols and colours. The location and pattern of distribution of different features help in understanding the area shown on the map.

Topographical Maps Important Terms

- Topographical Maps: These are also known as general purpose maps. These are drawn at relatively large scales. These maps show important natural and cultural features such as relief, vegetation, water bodies, cultivated land, settlements, and transportation networks, etc.
- Relief Maps: The earth's surface is not uniform and it varies from mountains to hills to plateaus and plains. The elevation and depressions of the earth's surface are known as physical features or relief features of the earth. The map showing these features is called a relief map.

- India and Adjacent Countries Series: Topographical maps under India and Adjacent Countries Series were prepared by the Survey of India till the coming into existence of Delhi Survey Conference in 1937. Henceforth, the preparation of maps for the adjoining countries was abandoned and the Survey of India confined itself to prepare and publish the topographical maps for India as per the specifications laid down for the International Map Series of the World.
- International Map Series of the World: Topographical Maps under International Map Series of the World are designed to produce standardised maps for the entire World on a scale of 1 : 10,00,000 and 1 : 250,000.
- Contours: These are imaginary lines joining all the points of equal elevation or altitude above mean sea level. They are also called “level lines”.
- Contour Map: A map showing the landform of an area by contours is called a contour map.
- Contour Interval: It is interval between two successive contours. It is also known as vertical interval, usually written as V. I. Generally, it is constant for a given map.
- Cross-section: A side view of the ground cut vertically along a straight line. It is also known as a section or profile.
- Hachures: Small straight lines drawn on the map along the direction of maximum slope, running across the contours. They give an idea about the differences in the slope of the ground.
- Gentle Slope: When the degree or angle of slope of a feature is very low, the slope will be gentle.
- Steep Slope: When the degree or angle of slope of a feature is high and the contours are closely spaced, they indicate steep slope.
- Concave Slope: A slope with a gentle gradient in the lower parts of a relief feature and steep in its upper parts is called the concave slope.
- Convex Slope: The convex slope is fairly gentle in the upper part and steep in the lower part. As a result, the contours are widely spaced in the upper parts and are closely spaced in the lower parts.
- Conical Hill: It rises almost uniformly from the surrounding land. A conical hill with uniform slope and narrow top is represented by concentric contours spaced almost at regular intervals.
- Plateau: A widely stretched flat-topped high land, with relatively steeper slopes, rising above the adjoining plain or sea is called a plateau.
- Valley: A geomorphic feature lying between two hills or ridges and formed as a result of the lateral erosion by a river or a glacier is called a valley.
- Spur: A tongue of land, projecting from higher ground into the lower is called a spur. It is also represented by V-shaped contours but in the reverse manner.
- Cliff: It is a very steep or almost perpendicular face of landform. On a map, a cliff may be identified by the way the contours run very close to one another, ultimately merging into one.
- Waterfall: A sudden and more or less perpendicular descent of water from a considerable height in the bed of a river is called a waterfall.
- Rapids: When a waterfall succeeds or precedes with a cascading stream, it forms rapids upstream or downstream of a waterfall.