

GIRLS' HIGH SCHOOL AND COLLEGE PRAYAGRAJ.
 WORK SHEET NO.2
 Class 8(A, B, C, D, E) 2020-2021
 SUBJECT-GEOGRAPHY

NOTE - Parents, please ensure that the students read the passage carefully and answer the following questions. For further details child should refer to internet.

Chapter -REPRESENTATION OF GEOGRAPHICAL FEATURES

According to scale, the topo sheets are categorized into three main groups. They are

- Million sheets
- Quarter sheets
- Quadrant sheets

Million sheets

India and the adjoining countries are divided into $4^{\circ} \times 4^{\circ}$ sheets. These sheets are called the million sheets. The extent of each million sheet is 4° of latitudes and 4° of longitudes. Thus, they are also called $4^{\circ} \times 4^{\circ}$ sheets. A total of 36 million sheets are drawn to cover our whole country. These sheets are numbered as 45,46,47,48, and so on. The scale of these sheets is 1:1,000,000 i.e. 1 cm : 10 km.

Quarter sheets

A million sheet is divided into 16 equal parts. Each part of a million sheet is called the quarter sheet. The extent of each quarter sheet is 1° of latitude and 1° of longitude. Thus, the quarter sheets are also called $1^{\circ} \times 1^{\circ}$ sheets or degree sheets. These sheets are marked as A, B, C, D,....P and are written as 45A,45B,...45P. The scale of these sheets is 1 : 250,000 or 1 cm : 2.5 km.

Quadrant sheets

A quarter sheet is further sub- divided into 16 equal parts. Each part of a quarter sheet is called the quadrant sheet. The extent of each quadrant sheet is $\frac{1}{4}^{\circ}$ or 15' of latitude and $\frac{1}{4}^{\circ}$ or 15' longitude. These sheets are numbered from 1 to 16 and are written as 45A/1, 45A/2,....45A/16. The scale of these sheets is 1 : 50,000 or 2 cm : 1 km.

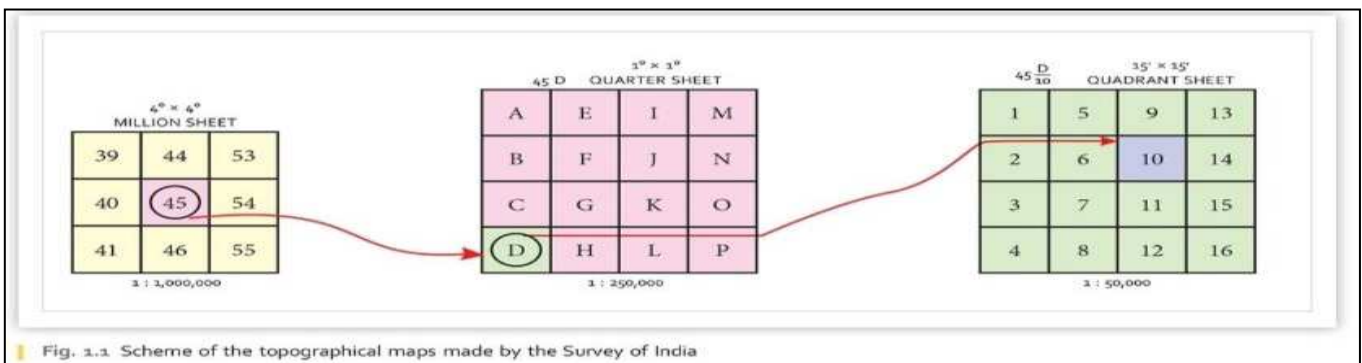


Fig. 1.1 Scheme of the topographical maps made by the Survey of India

Representation of relief on topo sheets

On a topo sheet contours, bench marks and spot heights are used to show different relief features. Of these, the contour method is probably the most precise, useful and popular. It is the standard method to show relief features on topo sheets.

Characteristics: Contours have the following characteristics.

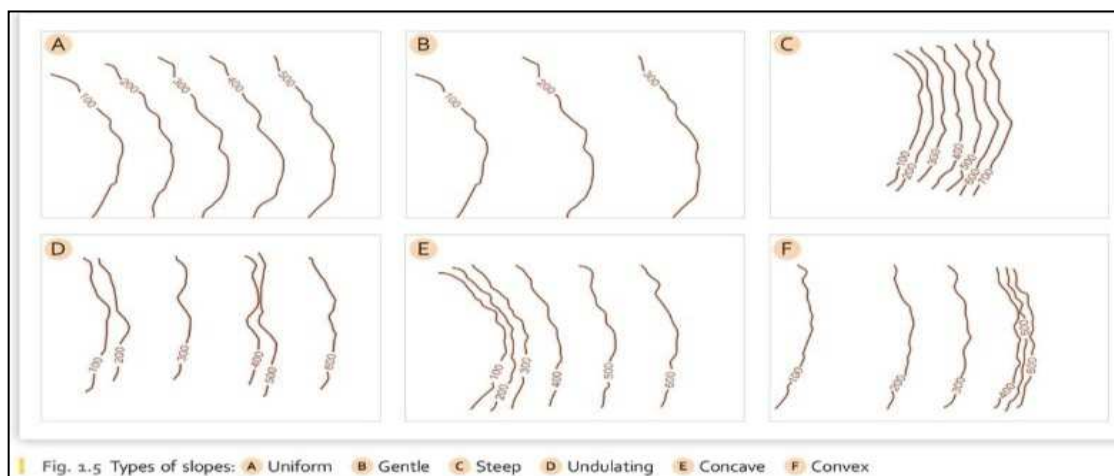
- They are shown in brown
- They are marked with a number called the contour value. The contour value shows the height of the land in meters, above the mean sea level.
- The contour value zero represents the coastline.
- They neither start nor end abruptly in a given area.
- The contours of different values can touch each other but they do not cross each other.
- The spacing between the contours shows the nature of the slope of the land.



Fig. 1.3 Contours show relief features on a topo sheet

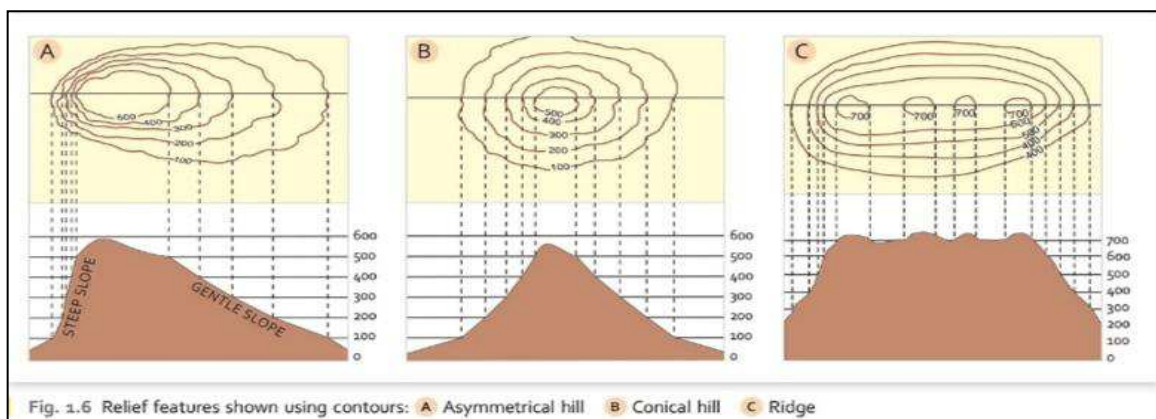
Identification of the slopes: The distance between any two successive contours indicates the slope of the land. The different types of slopes indicated by contours are as follows.

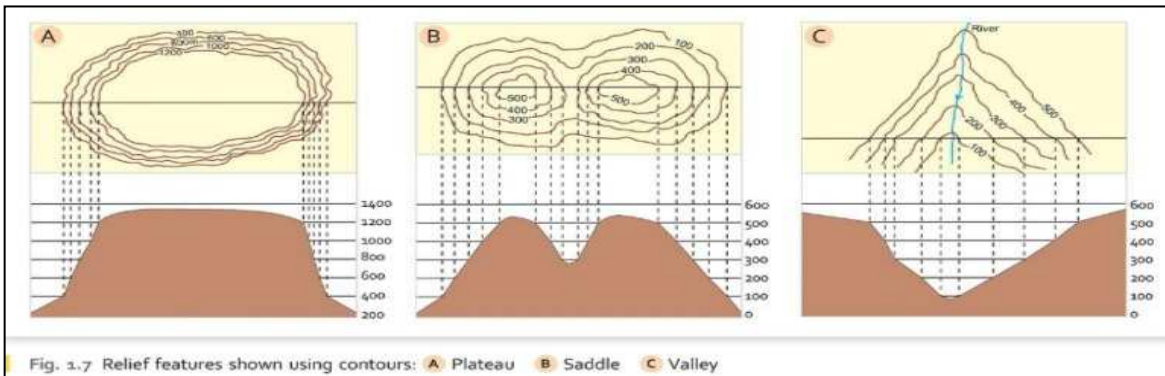
- The **uniform slope** is shown by evenly- spaced contours.
- The **gentle slope** is shown by widely-spaced contours.
- The **steep slope** is shown by closely-spaced contours.
- The **undulating slope** is shown by irregularly spaced contours.
- The **concave slope** is shown by closely- spaced contours at the bottom and widely-spaced contours at the top.
- The **convex slope** is shown by widely –spaced contours at the bottom and closely-spaced contours at the top.



Identification of relief features: The patterns developed by contours indicate different relief features. Some relief features indicated by closed contour patterns are as follows.

- A **conical hill** rises almost uniformly from the surrounding land. It is shown by almost concentric contours.
- A **ridge** is a high, elongated hill or a chain of hills that form a long, narrow strip of highland with sharp edges. It is shown by elliptical contours.
- A **plateau** is a flat- topped highland which rises abruptly from the adjoining plains. The top of the plateau is usually without contours and the edges are shown by closely- spaced contours.
- A **saddle** or **col** has two hills separated by gap or a pass. The gap provides a route through the highlands. In a saddle, the gap is wide, whereas in a col the gap is narrow with steep slopes. It is shown by two concentric circles enclosed by evenly-spaced contours.
- A **valley** is a low-lying area between two hills or ridges often occupied by a river. It is shown by V-shaped contours. The apex of the V points to the higher ground and its arms to the lower ground.





Profile of a contour feature

If a relief feature is cut vertically along a straight line, then the side view of the cut is called the profile or cross-section. The profile gives a fair idea about the type of landform, its height and slope.

Bench mark

The height of a specific point above the mean sea level which is used as a point of reference for other places is called bench mark. On a topo sheet, a bench mark is shown by a black dot followed by BM and a number.

Spot height

The exact height of a spot or place above the mean sea level is called a spot height. The spot height is shown by a black dot followed by a number. The number shows the height of the spot in meters.

Representation settlement on topo sheets

A cluster of houses in a village or a town, where people live, is called a settlement. The growth and development of a settlement depends upon suitable land, availability of water, favourable climate and fertile soil. The settlements can be of two types temporary and permanent.

Temporary settlements are occupied for a short period of time. They are generally developed for a specific need or purpose. Once the need or purpose is fulfilled, then the settlement is usually abandoned or demolished. Such settlements are found in forest, hot and cold deserts, and mountains. People who live in such settlements often practice hunting, gathering, fishing, shifting cultivation and transhumance. On a topo sheet, temporary settlement are shown using squares with red outline.

Permanent settlements are occupied for a very long time. They may be big or small and usually have a layout plan. Such settlements include buildings for residential and commercial purposes, schools, hospitals, offices, and cultural and entertainment needs. It also includes space for streets, roads and railways. Permanent settlements are shown with solid red squares on a topo sheet.

Types of settlement pattern

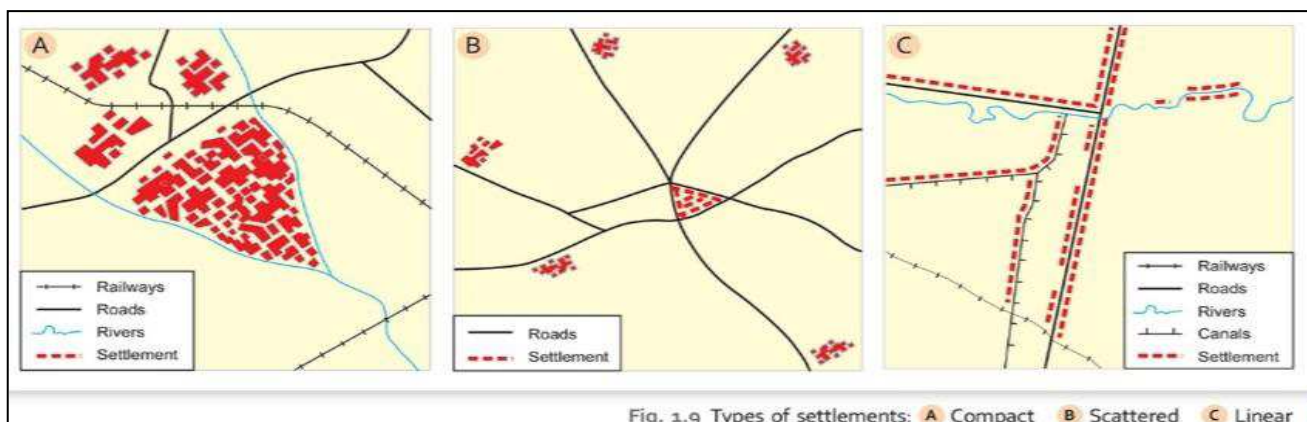
The settlement pattern in any region shows a close relationship between human beings and their economic and social environment. The settlements are generally divided into two types- **urban or towns** and **rural or villages**. The urban settlements are distinguished from the rural settlements on the basis of their size, population density, economic activities, administration and the number and quality of public utility services available. According to pattern or shapes, the settlements can be classified into:

- Compact
- Scattered
- Linear

Compact settlement- The settlements in which houses and other buildings are built close to each other are called compact or nucleated settlements. Such settlements are mostly found in fertile river valleys, plains, around a water source, mining centre, market or an industrial site.

Scattered settlements- The settlements in which houses and other buildings are scattered over a large area are called scattered or dispersed settlements. Such settlements are mostly found in hilly regions, deserts, plateaus and forested areas.

Linear settlements- The settlements in which the houses and other buildings are built in rows and the rows face each other are called linear settlements. Such settlements are mostly found along a road, a railway track, and river or canal banks.



Interpretation of topo sheet :

The interpretation of a topo sheet is a practical skill that can be developed through practice. It can be done under the following heads.

General information

The general information includes the following about topo sheets.

Name, Number, Area shown, Area covered in square kilometers, Latitudinal and Longitudinal extent, Scale, Contour interval.

Relief

The information on relief includes: Description of relief features, Major landforms and their location

Drainage

The information on drainage includes: Drainage patterns, Prominent water bodies.

Natural vegetation and economic activities

The information under land use and economic activities includes: Various types of natural vegetation and their distribution, Major types of possible land uses, Major occupations possible in the region or the main sources of livelihood such as lumbering, livestock, farming, mining and industries.

Transport and communication

The information under transport and communication includes: Different means of transport and communication shown on the topo sheet such as tracks, footpaths, roads, railways, telegraph and telephone lines, and post offices, Correlation between relief features and means of transport and communication.

Settlements

The information on settlement includes: Urban and rural centres- their size and location, Settlement patterns, Special activities associated with the urban centres such as industries, mining, trade, administrative and defence.

1. Answer the following Questions in Short:-

Q1. Why are million sheets also called $4^0 \times 4^0$ sheets?

Q2. Write four characteristics of contours.

Q3. What is a bench mark?

Q4. Define settlement.

Q5. What factors are suitable for the growth and development of settlements?

Q6. What are the various general information included on a topo sheet?

2. Answer the following questions in detail:-

- Q1. State the differences between the quarter and the quadrant sheet.
Q2. Differentiate between temporary and permanent settlement.
Q3. What is linear settlement? Where are such types of settlements found?
Q4. Differentiate between Compact and Scattered settlements.

3. Fill in the blanks:-

- 1 _____ slope is shown by closely spaced contours.
- 2 The settlement pattern shows a close _____ between human beings and their economic and social environment.
- 3 The _____ is shown by a black dot followed by a number in meters.
- 4 _____ settlements have a layout plan.
- 5 The urban settlements are distinguished from the rural settlements on the basis of their _____.

4. Answer in One Word:-

- 1 The slope shown by irregularly spaced contours.
- 2 A relief feature shown by a V-shaped contours.
- 3 It has two hills separated by a gap or a pass.
- 4 The side view of the relief feature cut vertically is known as.
- 5 Prominent water bodies are included under which heading on the topo sheet.

5. True and False:-

1. People who live in temporary settlements often practice hunting, gathering and fishing.
2. The contour value shows the height of the land in kilometers, above the mean sea level.
3. The profile gives a fair idea about the type of landform, its height and slope.
4. The information on settlement includes various types of natural vegetation and their distribution.
5. A conical hill is a high, elongated hill or a chain of hills that form a long, narrow strip of highland with sharp edges.

5. Draw and practice the following diagrams: - Compact settlement, Conical hill and the Gentle and the steep slope.

END

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