

TENDER HEART HIGH SCHOOL SEC-33 B CHD.

Subject: Geography Class: X Teacher: Mini Arora

Topic: Revision of Interpretation of Topographical Maps.

Students we had already studied about the basics of the Topographical Map. Now we practice some question/exercise given in your 'TOPO MAP BOOK'. Before practicing it, let us revise the topic we had learn earlier.

1. Grid Reference: Every Toposheet use to have certain questions related to grid reference. While writing the Four Figure or Six Figure grid reference first mention the Easting value (x-axis) and then the Northing value (y-axis). So, while mentioning four figure grid reference two numbers are showing the Easting and next two northing eg. 8723

Easting Northing

For Six-figure grid reference divide the square in ten equal parts vertically and horizontally.

To get the third figure in East or Counting horizontally and Sixth figure by counting vertically upwards.

2. Drainage pattern: In Toposheet, dry/seasonal streams are shown with black lines. They usually show some patterns:

- i) Dendritic (branches of a tree like)
- ii) Trellis (tributary join the main stream at 90°).
- iii) Radial (Streams moving out from a center/hill).
- iv) Disappearing stream: Stream shown with a continuous line that start becoming dotted afterwards.

Geography

Class-X

Toposheet.

3. Settlement Patterns :

Settlements or houses/huts are shown on the map with red coloured boxes or squares. If they are in a cluster or group it is Nucleated Settlement; If the red squares are far apart it is Dispersed settlement and if they are located in a line (road, railway, river) known as Linear Settlement.

4. Occupation :

To find the occupation of the people in an area we refer colours and symbols.

- i) Yellow wash $\rightarrow$ Agriculture
- ii) Green $\rightarrow$ Lumbering and forest activity.
- iii) Perennial river (blue river) $\rightarrow$ fishing.
- iv) Temple $\rightarrow$ Priests, Shopkeepers.
- v) PO, PTO $\rightarrow$ Service (government services).
- vi) White patch $\rightarrow$ Cattle rearing.

5. Scale :

Topo maps usually have three scales

- i) Statement scale — 2cm to 1km.
- ii) Graphical Scale.
- iii) Representative Fraction — 1:50,000.

6. Identification of Landforms :

With the help of Contours (brown lines) you can easily refer various Landforms as hills, plateau, ridges. If contour spacing is compact (nearby or less) it is steep slope region whereas if it is more it is a gentle slope.

7. Measurement of Distances:

a) To measure a distance along a straight line:

To find the direct distance between two villages you can use a ruler (scale). Suppose on the scale the distance is 6 cm (in ruler). We know the map scale is 2 cm = 1 km.

So, $\frac{6 \text{ cm}}{2} = \underline{3 \text{ km}}$ on the ground.

b) To measure a distance along curves:

To measure distances like course of a river or a winding road / cart track we can use a Thread or a Twine. Make a knot on the thread at one end and keep it on the starting point. Then very carefully turn the thread, placing it along the curves till you reach the finishing point. Now place the thread along the linear or Graphical scale given at the end of the map, from 0 to the right side and measure it.

3. Finding Area by Grid Square Method:

On topographical maps, each grid square measures 2 cm X 2 cm or 1 km X 1 km (on ground) since 2 cm is equal to 1 km. So, the area of each square is 1 sq. km.

To calculate an area on a topographical map find the no. of complete grid square in it. For eg. Find the area between Easting 80 to 84 and Northing 13 to 17.

⇒ Easting 84 - 80 = 4. Northing 17 - 13 = 4.
 $4 \times 4 = 16$. So, area is 16 km².

Geography Class-X Toposheet Revision

9. Direction: You are already aware of Cardinal and Intermediate directions. Now you have to apply it on Toposheets.

- Compass direction:- for eg. find compass direction of place A from place B. In this case, focus on place B and try to understand the direction of place A, if it is above B (North); Below B (South); Right side of B (East) and if Left side (West).

- Direction of the River:- To find the river direction on a Toposheet.

• Symbol showing ($\Rightarrow$) if the symbol of an arrow is shown on river course you can refer its direction. But if no symbol is indicated there

• Spot heights- Spot heights are shown with black colour numbers depicts the height above sea level. We all know a river usually flows down the slope. So, to find/refer its direction find the slope by using spot height. If the Spot height near by the river is decreasing towards south, the direction of the river is towards South.

10. Legend or Key: In every Toposheet a Legend is provided showing conventional symbols and their meaning. You can use it to refer the Toposheet.

11. Contour Interval of the Toposheet is 20 metres as indicated below the graphical scale.

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12. Climate: As per our syllabus we have two Topographical Maps - Sheet No. G43S7 and G43S10. They show the area of Rajasthan and Gujarat. Most of the region is dry and receive scanty rainfall. To refer the climatic condition of the area in toposheet. You have to find some evidences to prove as:

- If the region has seasonal streams, dry tanks .
- Region is covered with sand (brown dots) or Sanddunes / Sandhills.
- If the roads are Motorable in dry season. (mentioned along the red line).
- Barren or Uncultivable land (white patches).

★ 13r; 15r; 3r; 6r etc - In the map you may see any number along with 'r' written on any feature. Here, 'r' represents relative height or depth of any feature from nearest region. If 6r is written on a Sanddune, it means:

- Relative Height of the Sanddune is 6 meters.

HOME WORK:

Complete the Exercises given on Page no. 49, 51, 53, 55 and 57 of the TOPOMAP Book.

Last Page.