

MAPS and PROJECTIONS

E- Content

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What is map?

Maps are the effort to transfer the whole globe or any part of it on any flat surface with the help of latitudes, longitudes and with defined scale.



What is Projection?

Projection is the effort to draw the net of latitudes and longitudes with the help of given scale on any flat surface to transfer the whole globe or any part of it.

Types of Map Projection

A- according to the use of light

i- Perspective ii- Non Perspective

B- according to the construction method

i- Cylindrical ii- conical iii- Zenithal

C- according to the quality

i- Homolographic ii- Azimuthal iii- Orthographic

MAPS

There are two types of map according to the scale

MAPS

a- Small scale map
1: 1,000,000 or smaller

&

b- Large scale map
1: 25,000 or larger

Elements of map

1. *Title*

2. *Direction*

3. *Legends*

4. *North line*

5. *Scale*

6. *Labels*

7. *Grids*

8. *Index*

9. *Citation*

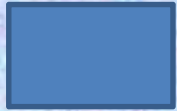


a - Small scale maps

Small scale maps are those maps in which comparatively larger area is shown on a comparatively smaller size.

Wall map and Atlas maps
are examples of small scale maps.

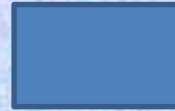
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A



B



C



D

For examples:

Here are four sheets of same size and area. We can draw the map of -

a district, a state, a country The world
on it.

contd....

- It means that on the same size and area different maps can be drawn from district level to the world level.
- It also means that **on sheet D** we can only draw the boundaries of the continents (not of their inner features) to represent the world.
- **On sheet C** we can draw only the boundary of a country (not of their inner features) to show.
- Likewise **On sheet B**, we can only show a single state (not of their inner features).
- And lastly **on sheet A** we can draw a map or boundary of a district (not of their inner features).
- Thus, it is clear that on the same size of sheet we can draw the different maps.
- Then how their scale would be the same? It's not possible.
- If we compare these four maps from district level to the world, their scale is decreasing/becomes smaller relatively and vice-versa.

Large scale maps

Large scale maps are those maps in which smaller area is covered/ or shown on a comparatively large size sheet/large scale.

Topographical maps and Cadastral maps are examples of such map type.

Here small area is shown on the larger sheet.

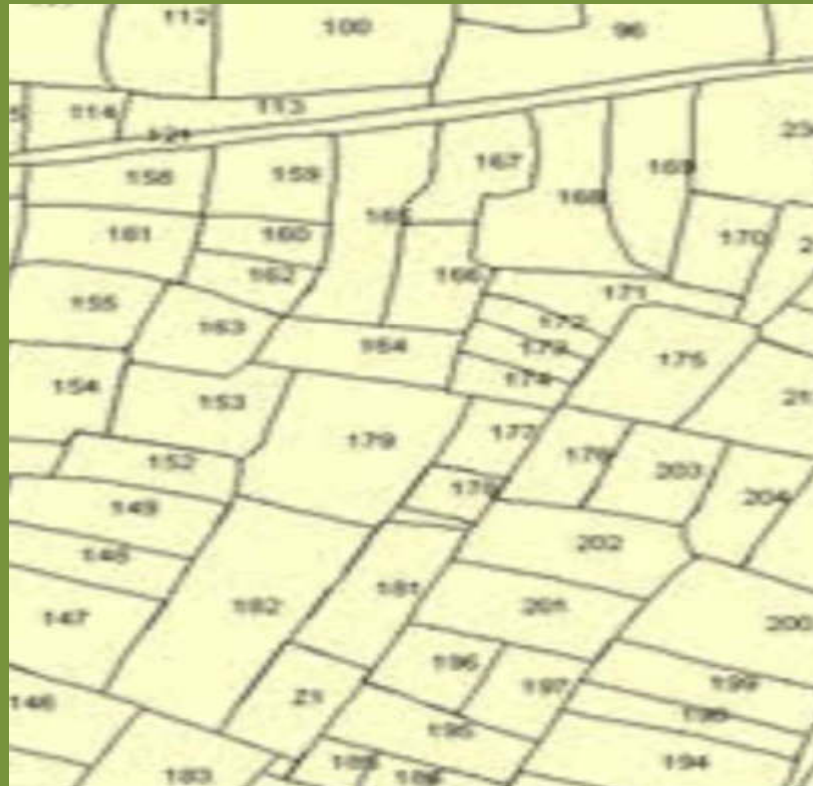
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Cadastral map is the largest scale map in which scale is remains largest as 16"=1 mile or 1:500 to 1: 10,000.

It is also known as **revenue map** through which farms/lands are shown / represented.

Cadastral map represent the boundaries of land, usually with the directions and length and the area of individual property compiled for the purpose of describing and recording ownership.

Cadastral maps



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Topographical maps are large scale standard maps in which all geographical features (except weather conditions) are shown through conventional sign and symbols.

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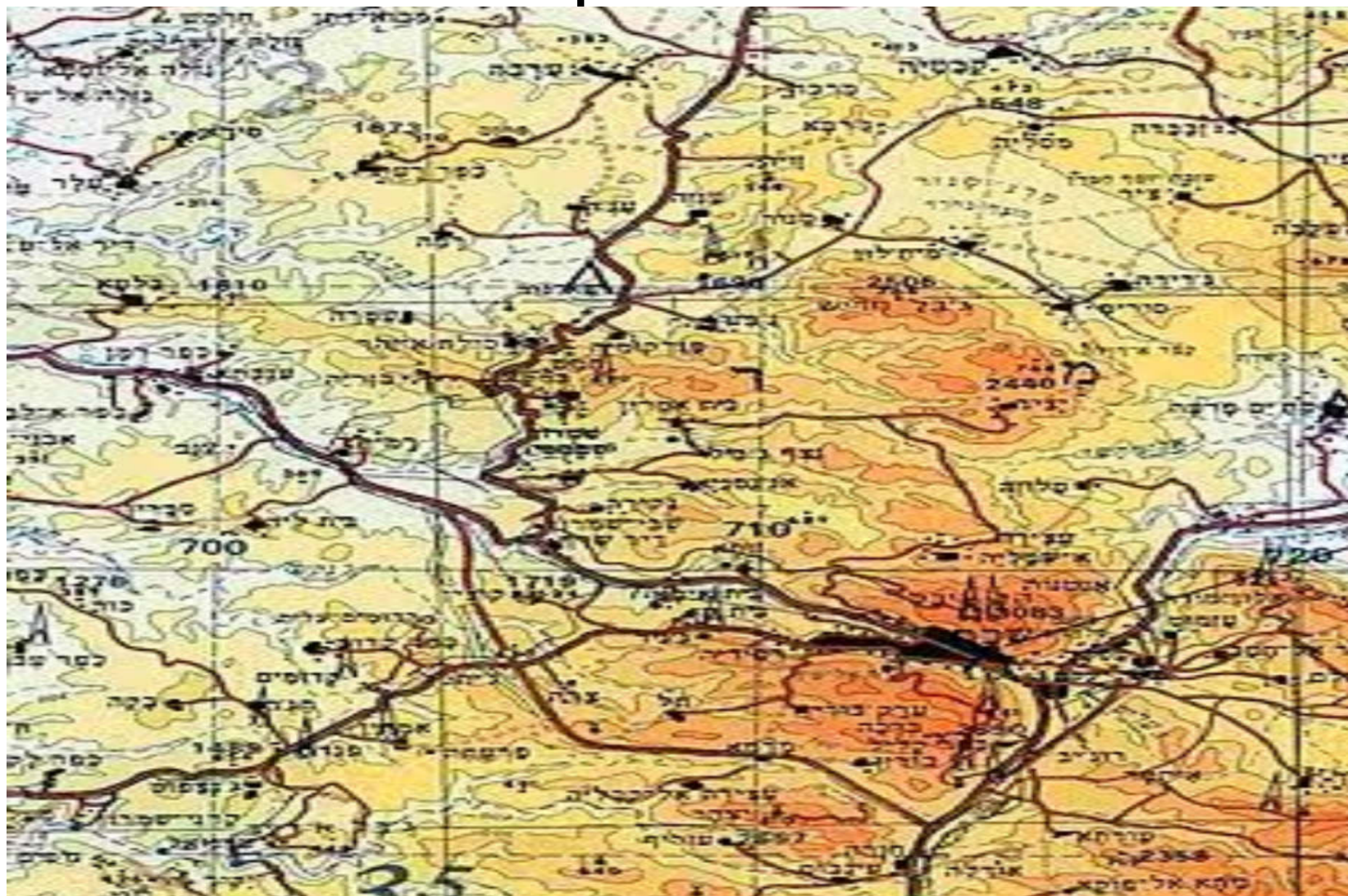
Topographical maps are 2222 in numbers for the world.

All maps have their fixed or standard scale. Topographical maps are highly strategic value maps as it contains all the small and large size features (physical and cultural) through conventional sign and symbols.

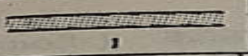
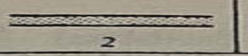
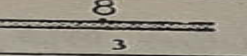


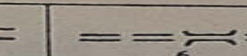


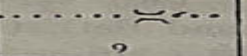
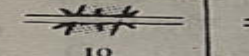

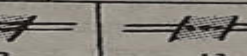

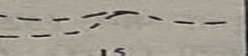
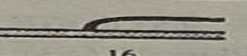






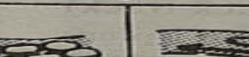


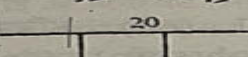

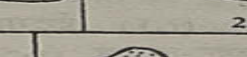



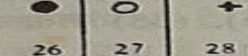


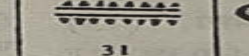
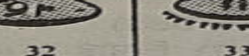






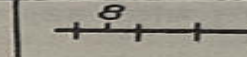
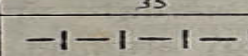




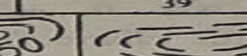



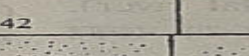
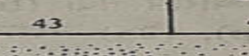

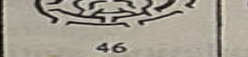





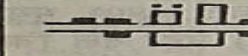





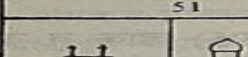

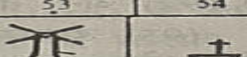

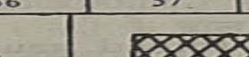

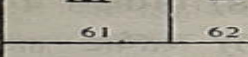
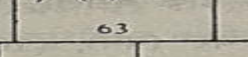

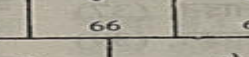
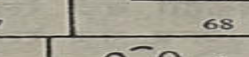
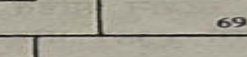
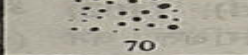

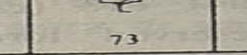


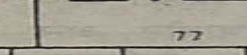


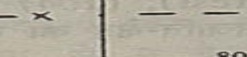





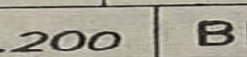
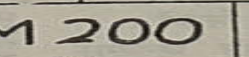
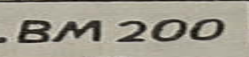
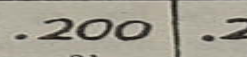
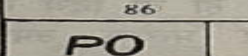
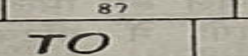

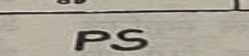
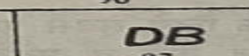
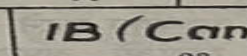
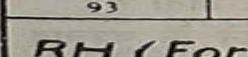

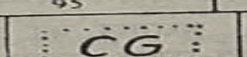
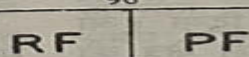
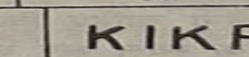



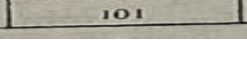
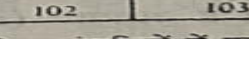








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Sheet No.	Extent: long/ lat.	Scale	No. of maps	Contours interval	R.F.	Name
72	4 degree / 4 degree	1" = 16 miles	1	500 feet	1: 1000000	Million scale map
72 A-P	1 degree/ 1 degree	1" = 4 miles	16	250 feet	1: 250000	Quarter inch map/ degree sheet
72 A/ NW	30 minutes / 30 minutes	1" = 2 mile	64	100 feet	1: 125000	Half inch map/ half degree sheet
72 A/ 1-16	15 minutes / 15minutes	1" = 1 mile	254	50 feet	1: 62500	One inch map/ quarter degree sheet

Topo sheet



some conventional sign and symbols

Interpretation of topographical sheet

- Topographical sheet are interpreted under following headings:
- 1- Primary information
- 2- Relief
- 3- Drainage
- 4- Vegetation
- 5- Human settlements
- 6- Means of irrigation
- 7- Transport and communication
- 8- Others

THE END

THANKS