7/09/2021

MAPS AND SCALE

1) Define Map with example.

Ans. Maps are the graphical expression of different features of the earth's surface like rivers, seas and oceans, mountains and hills, forest, roads, railways, bridges, religious, places etc. Eg- A large piece of paper with all the roads of a state drawn on it.

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2) Define scale with example.

Ans. A scale is the relation or the ratio between the distance on the map correspond to the distance on the ground. Eg- Scale of map is 1cm = 10km, it means, if the distance between two places on the map is 1 cm the actual distance between the places will be 10 km.

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3) What are the different types of scale?

Ans. The different types of scale are

i) Representative Fraction scale ii) Statement scale iii) Linear Scale.

i) Representative Fraction Scale - The ratio of the scale which represents the ratio of actual distance between two places on the ground correspond to the map distance is known as R.F Scale. Eg - 1:50000

ii) Linear Scale - The scale which represents the corresponding ground distance in a map with a straight line being graded into equal parts is know as linear scale.

iii) Statement scale - When the ratio between the distance of two places on the map and the actual distance on the ground is expressed by statement in a map is said to be the Statement scale Eg: 1 cm = 5 km

4) State the advantage of R.F. scale, linear scale & Statement scale.

A) The advantage of R.F. scale is that it is universally used, unit free and can easily be converted into any unit.

The advantage of Statement scale is that it is very easy to understand by getting the smaller and bigger units.

The advantage of linear scale is that it is more effective because by diagram the measurement and the unit is clearly visible.

5) What are conventional symbols?

A) The conventional symbols are the symbols which are used to show the natural and cultural features of a particular area with the help of appropriate colours. Conventional symbols are essential for topographical map.

i) Contour
ii) Pere
iii) No
iv) State
v) Meta
vi) unme
vii) Cart
~~ix)~~ Tunn
x) Huma
xi) POST
xii) Polic
xiii) Bura
xiv) Temp

i) Contour line

ii) Pond

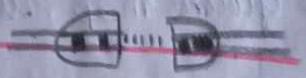
iii) Nala

iv) State boundary

v) Metal road

vi) Unmetal road

vii) Cart track

viii) Tunnel 

ix) Human settlement 

x) Post office - PO

xi) Police station - PS

xii) Broad gauge railway line - 

xiii) Temple 

Numerical

Conversion of R.F. to statement scale.

1) The R.F. of given map is 1:50000. What will be the statement scale of this map?

Ans 1 cm on the map ≡ 50000 cm on the ground

1 cm on the map ≡ $\frac{50000}{100000} = \frac{1}{2}$ km

2 cm on the map = 1 km on the ground.

Ans Statement scale of the given map is 2cm to 1km.

RW

2) R.F of the given map is 1:10000. What will be the statement scale?

1 cm on the map ≡ 10000 cm on the ground

1 cm on the map = $\frac{10000}{100000} = \frac{1}{10}$ km

10 cm on the map ≡ 1 km on the ground.

Ans Statement scale of the given map is 10cm to 1km.

$\frac{1}{10}$ km = 1cm

1 km = ?

$1 \times \frac{10}{1} \times 1$

3) R.F of the given map is 1:25000. What will be the statement scale?

Ans 1 cm on the map ≡ 25000 cm on the ground

1 cm " " " = $\frac{1}{4}$ km " " "

4 cm " " " = 1 km " " "

Ans Statement scale of the given map is 4cm to 1km.

$\frac{25000}{100000}$

4

$\frac{1}{4}$ k = 1cm

1 km = ?

$1 \times \frac{4}{1} = 4$

Conversion to R.F

1) The statement scale of the given map is 2cm to 1km. What is the R.F.?

Ans 2cm on the map ≡ 1km on the ground.
2cm " " " ≡ 100000 cm on the ground.
1cm " " " ≡ $\frac{100000}{2}$ = 50000

R.F Scale is = 1:50000

2) The statement scale on the map is 1cm to 1km. Find out the R.F.

Ans 1 cm on the map ≡ 1 km on the ground.
1cm " " " ≡ 100000 cm on the ground.

R.F. of the scale is 1:100000

HW

1) The statement scale of the map is 5cm to 10km. What is R.F.?

Ans 5cm on the map ≡ 10km on the ground.
5cm " " " ≡ 1000000 cm " " "
1cm " " " = $\frac{1000000}{5}$ cm " " "

R.F of the scale is 1:200000 Ans.

2) The statement scale of the map is 2cm to 5km. Find out the R.F.

Ans 2cm on the map ≡ 5km on the ground.
2cm on the map ≡ 500000 cm on the ground.

1 cm on the map ≡ $\frac{250000}{2}$ 100000 cm on the ground

R.F. of the scale is 1:250000

3) The R.F is 1:1000000. Find out statement scale.

1 cm on the map ≡ 1000000 cm on the ground

1 cm " " " ≡ $\frac{1000000}{100000}$ 10 km " "

$\frac{1}{10}$ cm " " " = 1 km " "

4) The R.F. is 1:40000. Find out statement scale.

1 cm on the map ≡ 40000 cm on the ground

1 cm on the map ≡ $\frac{2}{5}$ km " "

$\frac{5}{2}$ cm " " = 1 km " "

∴ Statement scale of the map is $\frac{5}{2}$ cm to 1 km.

R.F

1 cm = 1 km

1 km = 2

$\frac{1}{10}$ =

10 = 1

1 :

$\frac{2}{40000}$

$\frac{100000}{5}$

$\frac{2}{5}$ km = 1

1 = 2

$1 \times \frac{5}{2} \times 1$

$\frac{5}{2}$ cm

$\frac{2}{5)2000}$

0.4 km = 1

1 km = 2

1) Who classify

Maps are

Political

political

distructs

Political

Physical

natural

forest

drainag

Topograph

and the

are call

Weather

weather

weather

weather

Cadastral

the wall

Thematic

any ec

feature

of ea

2) Write

1) Write classify maps with their difination and example.

Ans Maps are of 6 types

Political Map - The map which shows the political boundaries of countries, states and districts etc is called political map. Eg Political map of India

Physical Map - The map which shows different natural features like landforms, rivers, forest etc are called physical map Eg - drainage maps of India.

Topographical Map - The map which co-relate natural features and the cultural features of a particular area in detail are called topographical map. Eg Maps of Ranchi and Hazaribagh.

Weather map - The map which implies the information of weather phenomenon with appropriate symbol are called weather maps. Eg - rainfall distribution map of India

Cadastral Map - The maps which shows the landuse pattern in the villages and towns is called cadastral map.

Thematic map - The maps which shows the statistical of any economic features with the help of some geometric features are called thematic map. Eg - population distribution of each district of west Bengal are shown by bar graphs.

2) Write the uses of Maps.

Ans The uses of map are

i) to know the location of a place or a country or a region.

ii) Climatic characteristics of different regions of the world are known from the maps.

iii) Population maps are used to know the distribution and density of population of different countries of the world.

iv) Economic maps are used to know the distribution and production of resources in different places of the world.

v) Transport maps helps to select the shortest transport system to reach ~~to reach~~ the destination

vi) Maps of a region published in different times explain how the geographical changes take place in that region

vii) Astronomical maps shows the location of stars & planets.

3) Why maps are marked with scale?

Ans Maps are the graphical impression of different features of the earth's surface like river, sea, oceans and

landforms etc. Scales are is the most important component of Map. Scale Actually, ~~rat~~ scale is depicted in a map to measure the actual (ground) distance between two places or features on the earth's surface. Actual distance between two places of the earth's surface cannot be represented in a map, so, the ground distance is depicted on a map in a smaller ratio drawn to a scale. That's why a map is invalid without scale.