CLASS XI	DATE
SUBJECT: GOGRAPHY	TOPIC: PRACTICAL 1: MAP

DIFFERENCE BETWEEN MAP AND GLOBE

MAP	GLOBE
It is a simplified representation of a part or whole of the earth surface in a proportionally reduced scale.	It is the model of the earth and is the best possible representation of the earth.
It is two dimensional.	It is three dimensional.
Map can give varieties of detail information.	It can only give general information.
Shape of continent is not accurately shown in map.	But the shape and location of a place can be best understood by referring globe.

ESSENTIAL FEATURES IN A MAP

- Scale

- Map Projection

- Map Generalisation

- Map Design

- Map Construction and Production

Scale

Ratio of distances between two points on the map and the corresponding distance between the same two points on the ground.

In other words, a map scale provides the relationship between the map and the whole or a part of the earth's surface shown on it.

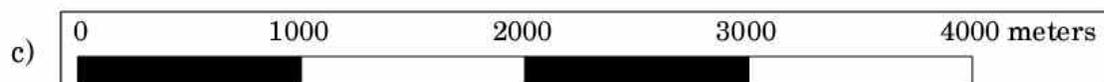There are at least three ways in which this relationship can be expressed. These are:

1. Statement of Scale

2. Representative Fraction (R. F.)

3. Graphical Scale

a) (1 centimeter represents 250 meters)

b) 1: 25 000

c)
0	1000	2000	3000	4000 meters

Statement of Scale

- The scale of a map may be indicated in the form of a written statement.

- For example, if on a map a written statement appears stating 1 cm represents 10 km, it means that on that map a distance of 1 cm is representing 10 km of the corresponding ground distance.

- 1 inch represents 10 miles.

Representative Fraction (R. F.)

- It shows the relationship between the map distance and the corresponding ground distance in units of length. The use of units to express the scale makes it the most versatile method.

- R. F. is generally shown in fraction because it shows how much the real world is reduced to fit on the map.

- For example; 1: 100,000

- This can be understood as 1cm in the map represents 100,000 cm of the ground or

- 1 inch of the map represents 100,000 inches of the ground.

Graphical Scale

- Scale shows map distances and the corresponding ground distances using a line bar with primary and secondary divisions marked on it.

CONVERSION OF SCALE

1. Statement scale to R.F.

- Convert the given Statement of Scale of 1 inch represents 4 miles into R. F.

 To convert this scale into RF, we need to convert 4 miles into inches

1 mile = 8 x 220 x 3 x 12 = 63,360 inches

4 miles = 63,360 x 4 = 253,440 inches

R.F. is 1:253,440

- Convert the given scale of 1cm represents 120 km into R.F.

To convert this scale into RF, we need to convert 120km into centimeter

1 km= 1000 x 100 = 100,000cm

120km =120 x 100,000= 120,000,00 cm

R.F. is 1:120,000,00

Textual questions

Convert the given Statement of Scale into Representative Fraction

I. 5 cm represents 10 km	III. 1 inch represents 1 yard
II. 2 inches represents 4 miles	IV. 1 cm represents 100 meters

2. R. F. into Statement of Scale

• Convert R.F. 1: 50,000 into statement scale in Matrix system	Convert R.F. 1: 253,440 into statement scale in English system
In matric system 1cm represent 50,000cm of the ground.	1 inch represents 253,440 inches of the ground
we will first convert 50,000cm to meter	we will first convert 253,440 into ft
As we know 1mt =100cm	As we know 1ft = 12 inches
50,000cm = 50,000/100= 500mt	253,440/12 =21,120 ft
So, the statement is 1cm represents 500mt	Covert ft into yard (1 yard = 3 ft)
	21,120/3=7040 yard
	convert yard into furlong (1 furlong = 220 yards)
	7040/220= 32 furlongs
	convert furlong into miles (1mile=8 furlongs)
	32/8= 4 miles
	so, the statement scale is 1inch represents 4 miles
	(1 mile = 63,360 inches)
	253,440/63,360= 4 miles

TEXTUAL QUESTIONS

I. 1: 100,000 (into km)	II. 1: 126,720 (into miles)
III. 1: 31680 (into furlongs)	IV. 1: 50,000 (into mt)

3. CONSTRUCTION OF BAR SCALE/ GRAPHIC SCALE

Construct a graphical scale for a map drawn at a scale of 1: 50,000 and read the distances in kilometre and metre.

To get the length of line for the graphical scale, these steps may be followed:

1: 50,000 means that 1 unit of the map represents 50,000 units on the ground

  or 1 cm represents 50,000 cm

  or 1 cm represents 500 mt

Construction

The graphical scale may be constructed by following these steps:

Draw a straight line of 10 cm and divide it into 5 equal parts

 Assign a value of 1 km each for 4 right side divisions from the 0 mark

divide the extreme left side division into 10 equal parts

 mark each division by a value of 100 mt, for left side beginning from 0.

From 0 towards right is primary divisions, and towards left is secondary divisions.

(mt)   600 500 400 300 200 100

           0   1   2   3   {km}

- Convert the following scale into graphic scale

  1. 1: 126,720 (into miles)

  2. 1: 100,000 (into km)

  3. 1 cm represents 100 mt

  4. 1 inch represents 1 yard

  5. 1: 50,000 (into mt)

  6. 4 cm represents 20,000km