NCERT SOLUTIONS

CLASS - 11th



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Class : 11th

Subject : Geography

Chapter : 2

Chapter Name : Map Scale

Q1 Choose the right answer from the four alternatives given below :

i) Which one of the following methods of scale is a universal method ?
(a) Simple Statement
(b) Representative Fraction
(c) Graphical Scale
(d) None of the above

ii) Map distance in a scale is also known as :
(a) Numerator
(b) Denominator
(c) Statement of Scale
(d) Representative Fraction

iii) 'Numerator' in scale represents :
(a) Ground distance
(b) Map distance
(c) Both the distance
(d) None of the above

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Answer.
i) (b) Representative Fraction
ii) (a) Numerator
iii) (b) Map distance

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Q2 Answer the following questions in about 30 words :

(i) What are the two different systems of measurement ?
(ii) Give one example each of statement of scale in Metric and English system.
(iii) Why is the Representative Fraction method called a Universal method ?
(iv) What are the major advantages of the graphical method ?

Answer.
(i) The two different systems of measurement are :

- Metric System of Measurement.
- The English System of Measurement.

(ii) The scale of a map is generally indicated in the form of a written statement.
Examples :
In Metric System : 1 cm represents 10 km, this means that on that map a distance of 1 cm is representing 10 km of the corresponding ground distance.
In English System : 1 inch represents 10 miles, this means that on that map a distance of 1 inch is representing 10 miles of the corresponding ground distance.

(iii) Representative Fraction is a method of scale. This fraction shows the relationship between the map distance and the corresponding ground distance in units of length. The quality of expressing scale in units of R. F. makes it a universally acceptable and usable method.

(iv) In the graphical method of scale the map distance and corresponding ground distance is shown by using a line bar with primary and secondary divisions marked on it. The major advantage of this method is it stands valid even when the map is reduced or enlarged.

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Q3 Convert the given Statement of Scale into Representative Fraction (R. F).

i) 5 cm represents 10 km
ii) 2 inches represents 4 miles
iii) 1 inch represents 1 yard
iv) 1 cm represents 100 metres

Answer.
i)
5 cm = 10 km
or, 1 cm = 2 km
or, 1 cm = 2 × 1,000 m
or, 1 cm = 2 × 1,000 × 100 cm
or, 1 unit = 2,00,000 units (cms has been replaced with units)
Therefore, R. F. is 1 : 2,00,000

ii) 2 inches = 4 miles
or, 1 inch = 2 miles
or, 1 inch = 2 × 63,360 inches
or, 1 unit = 1,26,720 units (inches has been replaced with units)
Therefore, R. F. is 1 : 1,26,720 units

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iii) 1 inch = 1 yard
or, 1 inch = 3 feet
or, 1 inch = 3 × 12 inches
or, 1 unit = 36 units (inches has been replaced with units)
Therefore, R. F. is 1 : 36

iv) 1 cm = 100 m
or, 1 cm = 100 × 100 cm
or 1 unit = 10,000 units (cms has been replaced with units)
Therefore, R. F. is 1 : 10,000

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Q4 Convert the given Representative Fraction (R. F) into Statement Scale in the System of Measurement shown in parentheses :

(i) 1 : 100,000 (into km)
(ii) 1 : 31680 (into furlongs)
(iii) 1 : 126,720 (into miles)
(iv) 1 : 50,000 (into metres)

Answer.

(i) 1 unit on map = 1,00,000 units on ground
or, 1 cm = 1,00,000 ÷ 1,00,000 (1 km equals 1,00,000 cms)
Therefore, 1 cm = 1 km

(ii) 1 unit on map = 31,680 units on ground
or, 1 inch = 31,680 ÷ 7,920 furlongs (1 furlong equals 7,920 inches)

Therefore, 1 inch = 4 furlongs

(iii) 1 unit on map = 1,26,720 units on ground
or, 1 inch = 1,26,720 ÷ 63,360 inches (1 Mile equals 63,360 inches)
Therefore, 1 inch = 2 miles

(iv) 1 unit on map = 50,000 units on ground
or, 1 cm = 50,000 ÷ 100 metres (1 metre equals 100 cms)
Therefore, 1 cm = 500 metres

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Q5 Construct a graphical scale when the given R. F is 1 : 50,000 and read the distances in kilometers and metre.

Answer.



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