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CLASS 6 — SOCIAL SCIENCE (GEOGRAPHY)

CHAPTER 1 Locating Places on the Earth

Complete Study Notes | MCQs | Short & Long Answer Questions
For CBSE & State Board Students | British English Edition

Topics Covered	10 Topic-wise Sections
MCQ Questions	15 Multiple Choice Questions
Short Answer Qs	8 Questions (approx. 35 words each)
Long Answer Qs	4 Questions (approx. 60 words each)
Language	British English
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TOPIC 1 — WHAT IS A MAP?

Imagine visiting a city for the first time. How would you find the places you wish to visit? You might ask a local resident for help, or you might consult a **MAP!** A map does exactly what a helpful friend does — it shows you the way.

MAP — Simple Definition

A map is a representation or drawing of an area as seen from above (a bird's-eye view).

It may show a small area (a village, a town) or a very large area (India, the whole world).

Maps help us understand distances, directions, and the features of a place.

ATLAS

An atlas is a book or collection of maps. When many maps are bound together in one book, it is called an **Atlas**.

Types of Maps

Type of Map	What Does It Show?	Example
Physical Map	Natural features — mountains, rivers, oceans	Map of the Himalayas or the River Ganga
Political Map	States, boundaries, cities, capitals	Map of India showing all States and Union Territories
Thematic Map	Specific information on a particular topic	Rainfall map, crop distribution map

The Three Main Components of a Map

Distance + Direction + Symbols = A Perfect Map!

1. **DISTANCE** — shows how far apart two places are on the map (using scale).
2. **DIRECTION** — shows which way is North, South, East or West.
3. **SYMBOLS** — small signs or drawings that represent buildings, roads, rivers, etc.

TOPIC 2 — SCALE

India is an enormous country, yet its map fits onto a single page of a book. This is possible because of the map's **SCALE**.

What Is Scale?

Scale = the ratio between a distance on the map and the actual distance on the ground.

Example: If the scale is 1 cm = 500 m, then 1 centimetre on the map represents 500 metres on the ground.

For a map of India: 1 cm may represent 500 km on the ground.

The smaller the scale, the larger the area that can be shown on the map.

Remember: To find the actual distance between two points on a map, always use the scale provided.

TOPIC 3 — DIRECTION

Every map has an arrow marked with the letter 'N', which points towards **North**. Once you know North, all other directions become easy to identify.

Cardinal Directions (The Four Main Directions)

Direction	Hindi Name	Position on Map
NORTH (N)	Uttar	Top
SOUTH (S)	Dakshin	Bottom
EAST (E)	Purv	Right
WEST (W)	Pashchim	Left

Intermediate Directions

- NE = North-East (between North and East)
- SE = South-East (between South and East)
- SW = South-West (between South and West)
- NW = North-West (between North and West)

Memory Trick!

Never Eat Soggy Waffles = North, East, South, West (going clockwise)

TOPIC 4 — SYMBOLS (Map Signs)

It would be impossible to draw every building and feature in its true form on a map — there simply is not enough space. Instead, map-makers use **SYMBOLS** to represent features.

Symbol / Abbreviation	What It Represents
PO	Post Office
PTO	Post and Telegraph Office
PS	Police Station
Blue wavy lines	River or water body
Double parallel lines	Road or Highway
Railway track pattern	Railway Line
Temple symbol	Place of worship (Temple)
Church symbol	Place of worship (Church)

The **Survey of India** has established a standard set of symbols for maps of India, ensuring that the same symbol carries the same meaning throughout the country.

TOPIC 5 — THE GLOBE AND MAPPING THE EARTH

The Earth is not flat — it is roughly spherical in shape. Representing a sphere accurately on a flat sheet of paper is not possible. This is why we use a **GLOBE**.

What Is a Globe?

A globe is a sphere on which a map of the Earth is drawn.

Because the Earth itself is spherical, a globe represents it far more accurately than a flat map.

A globe is generally made of metal, plastic, or cardboard.

Both latitudes and longitudes are clearly visible on a globe.

Think about this: If you peel an orange and try to flatten the pieces of skin onto a table, they will tear at the edges. This is exactly the problem with representing a sphere on a flat surface.

TOPIC 6 — COORDINATES

Coordinates are a pair of numbers (or measurements) that together pinpoint the exact location of any place on Earth. Think of it as a precise address system — just as you might say 'the 7th shop in the 5th row of a market', coordinates tell us exactly where a place is on the globe.

Coordinates = Latitude + Longitude

Two values together identify any location on Earth with precision.

Example: New Delhi = 29 degrees North latitude, 77 degrees East longitude.

With these two values, anyone can locate Delhi on any map or globe in the world!

TOPIC 7 — LATITUDE

Latitude measures the distance of a place from the Equator, expressed in degrees. Lines of latitude run from east to west and are called **Parallels of Latitude**.

Key Facts About Latitude

- The **Equator** is 0 degrees latitude — the longest latitude line
- The **North Pole** is at 90 degrees N
- The **South Pole** is at 90 degrees S
- As you move away from the Equator towards the poles, latitude increases
- All parallels of latitude run parallel to the Equator
- The circles grow smaller as they approach the poles

Latitude and Climate

Climate Zone	Location	Climate
Torrid Zone (Hot)	Near the Equator (low latitudes)	Very hot throughout the year
Temperate Zone (Moderate)	Middle latitudes	Neither too hot nor too cold
Frigid Zone (Cold)	Near the Poles (high latitudes)	Very cold throughout the year

TOPIC 8 — LONGITUDE

Longitude measures the distance of a place from the **Prime Meridian**, expressed in degrees. Lines of longitude run from the North Pole to the South Pole and are called **Meridians of Longitude**.

Key Facts About Longitude

- The **Prime Meridian** = 0 degrees longitude, passing through Greenwich, London
- In 1884, nations agreed to adopt the Greenwich Meridian as the international standard
- Longitude extends from 0 degrees to 180 degrees West and 0 degrees to 180 degrees East
- New Delhi = approx. 77 degrees E | New York = approx. 74 degrees W | Tokyo = approx. 140 degrees E
- 180 degrees W and 180 degrees E are the same meridian, simply noted as 180 degrees

Important Distinction!

Latitude lines (Parallels) = complete circles — they vary in size (Equator is the largest).

Longitude lines (Meridians) = half-circles from pole to pole — all equal in length.

The Equator divides the Earth into Northern and Southern Hemispheres.

The Prime Meridian divides the Earth into Eastern and Western Hemispheres.

Did You Know? — Ujjain's Ancient Prime Meridian

Long before the Greenwich Meridian was established, ancient India had its own prime meridian!

It was called the 'Madhya Rekha' (meaning 'middle line') and passed through Ujjain (Madhya Pradesh).

The famous astronomer Varahamihira worked there approximately 1,500 years ago.

Indian astronomers were fully aware of the concepts of latitude, longitude, and a zero meridian.

TOPIC 9 — THE GRID

When all lines of latitude and longitude are drawn together on a globe or map, they form a **GRID** — a network of intersecting lines, much like the lines on a sheet of squared paper. This grid allows us to locate any place with great precision.

How to Find a Location Using the Grid

Step 1: Find the latitude — how many degrees North or South of the Equator?

Step 2: Find the longitude — how many degrees East or West of the Prime Meridian?

Step 3: Combine both values — this gives the exact coordinates of the place.

Example: New Delhi = 29 degrees N latitude, 77 degrees E longitude

TOPIC 10 — TIME ZONES

Have you ever wondered why it is daytime in India whilst it is night-time in the United States of America? This is because of **TIME ZONES**!

How Is Local Time Calculated?

- The Earth completes one full rotation in 24 hours
- A full rotation = 360 degrees, so in one hour the Earth rotates 15 degrees ($360 / 24 = 15$)
- Therefore, for every 15 degrees of longitude, the time difference is 1 hour
- Moving eastwards — time increases; moving westwards — time decreases

Standard Time vs Local Time

A country cannot operate on many different local times simultaneously. Therefore, each country adopts a single **Standard Time** based on a central meridian.

Indian Standard Time (IST)

IST = Indian Standard Time

IST is 5 hours and 30 minutes ahead of Greenwich Mean Time (GMT + 5:30)

India's Standard Meridian = 82.5 degrees E longitude

This meridian passes through Mirzapur, Uttar Pradesh

When it is 12:00 noon in London (GMT), it is 17:30 (5:30 pm) in India

The International Date Line

- Located approximately at 180 degrees longitude — directly opposite the Prime Meridian
- When crossing from east to west, you add one day to the date
- When crossing from west to east, you subtract one day from the date
- The line is not perfectly straight — it curves to avoid splitting a single country into two different calendar days
- Some large countries (such as the USA and Russia) have multiple time zones

MULTIPLE CHOICE QUESTIONS (MCQs)

(Choose the correct option — the correct answer is shown in **green**)

Q1. A book or collection of maps is called a _____.	(A) Globe (B) Atlas (C) Scale (D) Grid	(B) Atlas
Q2. The three main components of a map are _____.	(A) Scale, Globe, Grid (B) Distance, Direction, Symbols (C) Latitude, Longitude, Time (D) North, South, East, West	(B) Distance, Direction, Symbols
Q3. The latitude of the Equator is _____.	(A) 90 degrees N (B) 45 degrees S (C) 0 degrees (D) 180 degrees	(C) 0 degrees
Q4. The Prime Meridian passes through _____.	(A) Paris, France (B) New York, USA (C) New Delhi, India (D) Greenwich, London	(D) Greenwich, London
Q5. Indian Standard Time (IST) is ahead of GMT by _____.	(A) 5 hours (B) 5 hours 30 minutes (C) 6 hours (D) 4 hours 30 minutes	(B) 5 hours 30 minutes
Q6. The latitude of the North Pole is _____.	(A) 45 degrees N (B) 0 degrees (C) 90 degrees N (D) 180 degrees N	(C) 90 degrees N
Q7. How many degrees of longitude does the Earth rotate in one hour?	(A) 10 degrees (B) 24 degrees (C) 15 degrees (D) 360 degrees	(C) 15 degrees
Q8. The International Date Line is located approximately at _____.	(A) 0 degrees longitude (B) 90 degrees E (C) 45 degrees W (D) 180 degrees longitude	(D) 180 degrees longitude
Q9. Lines of latitude are also called _____.	(A) Meridians (B) Parallels (C) Grid lines (D) Scale lines	(B) Parallels
Q10. A globe is _____.	(A) A flat map (B) A measurement of scale (C) A sphere on which a map of the Earth is drawn (D) A page from an atlas	(C) A sphere on which a map of the Earth is drawn
Q11. India's Standard Meridian passes through _____.	(A) New Delhi (B) Mirzapur (82.5 degrees E) (C) Mumbai (D) Chennai	(B) Mirzapur (82.5 degrees E)
Q12. In map directions, 'SE' stands for _____.	(A) South-West (B) North-East (C) South-East (D) North-West	(C) South-East
Q13. Symbols are used on maps in order to _____.	(A) Make the map more colourful (B) Show numerous features within a limited space (C) Calculate distances (D) Show the scale	(B) Show numerous features within a limited space

Q14. Lines of longitude run from _____.	(A) East to West (B) Equator to Tropic (C) North Pole to South Pole (D) Prime Meridian to International Date Line	(C) North Pole to South Pole
Q15. In ancient India, the prime meridian passed through _____.	(A) New Delhi (B) Varanasi (C) Ujjain (D) Agra	(C) Ujjain

SHORT ANSWER TYPE QUESTIONS (Approximately 35 Words)

(Important for both CBSE and State Board examinations)

Q1. What is a map? What is an atlas?

Answer:

A map is a representation or drawing of an area as seen from above. It may depict a small locality or the entire world. Maps help us understand distances, directions, and geographical features. A collection of maps bound together in a single book is called an atlas.

Q2. What is scale? Why is it important in map-making?

Answer:

Scale is the ratio between a distance measured on a map and the corresponding actual distance on the ground. For example, 1 cm = 500 km. Scale allows vast areas to be shown on a small sheet of paper, making maps practical and useful.

Q3. What are cardinal directions?

Answer:

Cardinal directions are the four principal directions — North, South, East, and West. On a map, an arrow marked 'N' indicates North, from which all other directions can be determined. Intermediate directions include North-East, South-East, South-West, and North-West.

Q4. What is latitude? What is the Equator?

Answer:

Latitude is the angular distance of a place north or south of the Equator, expressed in degrees. Lines of latitude are called parallels. The Equator is the 0-degree latitude line — the longest parallel that divides the Earth into the Northern and Southern Hemispheres.

Q5. What is the Prime Meridian?

Answer:

The Prime Meridian is the 0-degree longitude line, which passes through Greenwich, London. It was adopted as the international standard in 1884. The Prime Meridian divides the Earth into the Eastern and Western Hemispheres, and all longitudes are measured from it.

Q6. What is the difference between local time and standard time?

Answer:

Local time is calculated according to a specific longitude, whereas standard time is a single time adopted by an entire country based on a chosen meridian. India's Standard Time (IST) is GMT + 5 hours 30 minutes, based on the 82.5 degrees E meridian passing through Mirzapur.

Q7. What is the International Date Line?**Answer:**

The International Date Line lies approximately at 180 degrees longitude, directly opposite the Prime Meridian. Crossing it changes the date — moving eastward subtracts one day; moving westward adds one day. It follows a slightly curved path to avoid dividing countries into two different calendar days.

Q8. Why are symbols necessary on a map?**Answer:**

Maps have limited space, so it is impossible to draw every building or feature in its actual form. Symbols — such as PO for Post Office and blue lines for rivers — allow numerous features to be displayed within a small area. The Survey of India provides standard symbols for Indian maps.

LONG ANSWER TYPE QUESTIONS (Approximately 60 Words)

(Important for CBSE 5-mark questions)

Q1. What is a map? Describe its types and the three main components.

Answer:

A map is a representation or drawing of any area as viewed from above. It may depict a small area such as a village or a vast area such as the entire world. A collection of maps is called an atlas.

Maps are of three main types:

1. Physical Maps — show natural features such as mountains, rivers, and oceans.
2. Political Maps — show countries, states, boundaries, and cities.
3. Thematic Maps — provide specific information such as rainfall or crop distribution.

Every map has three essential components: Distance (shown through scale), Direction (indicated by a North arrow), and Symbols (signs representing various features). Together, these components make a map accurate, readable, and highly useful.

Q2. What are latitude and longitude? How do coordinates help us locate places?

Answer:

Latitude is the angular distance of a place north or south of the Equator, measured in degrees. Lines of latitude are called parallels. The Equator (0 degrees) is the longest parallel, whilst the North Pole (90 degrees N) and South Pole (90 degrees S) are the extremes.

Longitude is the angular distance of a place east or west of the Prime Meridian (0 degrees, Greenwich, London), also measured in degrees. Lines of longitude are called meridians and run from pole to pole.

Together, latitude and longitude form coordinates — a precise system for locating any place on Earth. For example, New Delhi lies at approximately 29 degrees N latitude and 77 degrees E longitude. With these two values, Delhi can be pinpointed on any globe or map in the world.

Q3. What are time zones? Explain IST and the International Date Line.**Answer:**

The Earth completes one full rotation of 360 degrees in 24 hours, which means it rotates 15 degrees per hour. Every 15 degrees of longitude therefore represents a difference of one hour in local time. These divisions of time are called time zones.

Local Time: the time calculated for a specific longitude.

Standard Time: the official time adopted by an entire country based on a selected meridian.

Indian Standard Time (IST) = GMT + 5 hours 30 minutes, based on the 82.5 degrees E meridian through Mirzapur, Uttar Pradesh. When it is 12:00 noon in London, it is 17:30 in India.

The International Date Line lies approximately at 180 degrees longitude. Crossing it from west to east subtracts one calendar day; crossing from east to west adds one day. Large countries such as Russia and the USA have multiple time zones.

Q4. What is a globe? Why is it a more accurate representation of the Earth than a flat map?**Answer:**

A globe is a sphere on which a map of the Earth is drawn. It may be made of metal, plastic, or cardboard and clearly shows the network of latitudes, longitudes, continents, and oceans.

A flat map cannot accurately represent a spherical surface. When we attempt to flatten a sphere — as when peeling an orange and pressing the pieces flat — the pieces tear and distort. Similarly, flat maps distort the shapes and sizes of countries, especially near the poles.

Advantages of a globe over a flat map:

1. Distances are represented accurately.
2. Shapes and sizes of countries are not distorted.
3. Latitudes and longitudes are clearly visible.
4. The relative positions of continents are correctly shown.

For these reasons, a globe provides a far more reliable and accurate picture of the Earth than any flat map.

CHAPTER SUMMARY — Quick Revision

Term	Meaning
Map	A drawing or representation of an area as seen from above
Atlas	A book or collection of maps
Scale	Ratio of map distance to actual distance on the ground
Cardinal Points	North, South, East, West — the four main directions
Symbols	Signs used on maps to represent features and landmarks
Globe	A sphere on which a map of the Earth is drawn
Latitude	Angular distance north or south of the Equator, in degrees
Equator	0 degrees latitude — the longest parallel of latitude
Parallels	Lines of latitude running east to west
Longitude	Angular distance east or west of the Prime Meridian, in degrees
Prime Meridian	0 degrees longitude — passes through Greenwich, London
Meridians	Lines of longitude running from pole to pole
Coordinates	Latitude + Longitude together pinpoint any location on Earth
Grid	Network of latitudes and longitudes drawn together
Local Time	Time calculated for a specific longitude
IST	Indian Standard Time = GMT + 5 hours 30 minutes
GMT	Greenwich Mean Time — the time at 0 degrees longitude (London)
International Date Line	Approx. 180 degrees longitude — crossing it changes the date
Time Zone	Every 15 degrees of longitude = 1 hour time difference
Torrid Zone	Hot climate zone near the Equator
Temperate Zone	Moderate climate zone in middle latitudes
Frigid Zone	Cold climate zone near the Poles

All the Very Best! Work hard and success will follow.

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