Chapter - 1
Locating Places on the Earth

Q.1 Facts that Matter

1. **Key Applications of Maps in Geography:** Some of the key applications of maps in Geography are -Location and Navigation Maps, Geological and Topographical, Political Maps, Historical and Cultural Studies.

2. **Components of a Map:** The main components of a Map are: Title, Coordinates Legend (Index), Scale, Compass and Source/Credits and Date.

3. **Important lines of latitude:** Important lines of Latitude are-Equator (0°), Tropic of Cancer (23.5°N),Tropic of Capricorn, (23.5°S) Arctic Circle (66.5°N), Antarctic Circle (66.5°S).

4. **What in Ist?:** Indian Standard Time -Indian Standard Time (IST) is the time zone for India, with a time offset of GMT + 5:30 hrs.

5. **Significance of Prime Meridian:** The Earth is divided into 360 degrees of longitude, with the Prime Meridian (0° longitude) in Greenwich, England, serving as the reference point.

6. **Importance of Globe:** A globe is a three dimensional model of the Earth which shows continents, ocean and countries in their correct shape and size.

Q.2 Multiple Choice Questions

1. **The rough drawing of an area is called a _____.**

   c) Sketch

2. **The longest circle drawn midway between the two poles is _____ .**

   c) Equator

3. **The line of longitude marked as 0° is called _____.**

   b) Prime Meridian

4. **What does PO stand for in the symbols?**

   a) Post Office

5. **Which one of the following is an intermediate direction?**

   c) South west

6. **The ratio between distance on the map and distance on the ground is called_____**

   b) Scale

7. **When it is 9:30 am at Greenwich, it will be_____ in India.**

b) 3:00 pm

8. Through which continent does the Prime Meridian pass?

a) Europe

9. Which of the following forms a grid on the globe?

c) Latitudes and Longitudes

10. The Hindi name of the Equator is _____

c) Madhya Rekha

Q.3 Study the picture, and answer the questions that follow.

a. Identify the Pictures A and B.

Picture A is a globe while Picture B is a map.

b. Can you locate any one difference between them?

Globe is used when we study Earth as a whole while Map is used when we study a part of the Earth.

c. Why are globes considered better than maps?

Globes are considered better than maps for representing the Earth because globes show the Earth's shape and distances more accurately without distortion than maps.

Q.4 Fill in the blanks.

1. The Equator divides the Earth into **Northern** and **Southern** Hemispheres.
2. The **Political map** gives details of political boundaries, cities and states.
3. The **Ujjayini** meridian became a reference for calculations in all Indian Astronomical texts.
4. The lines of longitude are also called **Meridians**.
5. The line opposite to the Prime Meridian is called the **International Date Line**.

Q.5 Match the items given in Column A with their correct pair in Column B.

	Column A		Column B
1.	Indian Prime Meridian	**A**	**East,West,North,South**
2.	Compass	**B.**	**Atlas**
3.	Torrid Zone	**C.**	**Ujjayini**
4.	Cardinal directions	**D.**	**Around the Equator**
5.	Collection of maps	**E.**	**Shows direction**

Answer: 1-C, 2-E, 3-D, 4-A, 5-B

Q.6 Assertion & Reason based Questions

a) Both A and R are true, and R is the correct explanation of A.

b) Both A and R are true, but R is not the correct explanation of A.

c) A is true, but R is false.

d) A is false, but R is true.

Choose the correct option

1. **Assertion (A) :** Symbols form an important component of maps to depict specific features.

   Reason (R) : Actual buildings, shops, school, post office, railway station, roads, river, forest etc. can be defined by symbols in a map.

2. **Assertion (A) :** The Prime Meridian was fixed at Greenwich, the opposite line at approximately 180 degree longitude, is called the International Date Line

   Reason (R) : Every country has only one standard time to calculate time zone.

1. a) Both A and R are true, and R is the correct explanation of A.

2. c) A is true, but R is false.

Q.7 Case Study Based Question

Read the paragraph given below and answer the following questions.

a. Which city is taken as the standard for International Meridian?

Greenwich, London.

b. State the longitude taken as the Standard Meridian of India.

82.5°E.

c. What is the time difference between the Greenwich Meridian and Standard Meridian of India ?

5 hours 30 minutes.

Q.8 Answer the following questions.

1. Who has the authority to fix a set of symbols for maps of India?

The Survey of India, a government body, has the authority to fix a set of symbols for maps of India.

2. What happens when we cross the International Date Line from west to east?

When crossing the International Date Line from West to East, a day gets reduced.

3. State any two merits of a globe.

a. It shows correct shape and size of continents & oceans.

b. It accurately depicts latitude & Longitude lines, important for understanding location & time zones.

4. Define latitudes and longitudes.

Latitudes are imaginary horizontal lines parallel to the Equator, measuring distance north or south; longitudes are all half circles running from pole to pole, measuring distance east or west.

5. Why do we need symbols and colours on maps?

We need symbols and colours on a map to make it easier to represent the real features of the Earth. Symbols represent different features like cities, rivers, police stations and temples while colours help show different areas like countries, forests and oceans.

6. What are coordinates ? Why do we need them?

Co-ordinates are two numbers or sometimes a letter and a number that locate a specific point on a grid. Latitudes and longitudes are referred to as two coordinates of a place on a map. They provide systematic network of lines (grid) upon which the position of various surface features of the Earth can be represented, located and identified. Both latitudes and longitudes intersect only on one point. By combining these two coordinates and identifying the point of intersection of latitudes and longitudes one can mark and locate any place on the earth.

7. Explain the main components of a map.

The main components of a map are:

a. **Distance :** It is represented by the scale, which shows the ratio of distance on the map to the actual distance on the ground.

b. **Direction :** It is indicated by cardinal directions (north, east, south, and west) and intermediate directions (northeast, southeast, southwest, and northwest).

c. **Symbols :** They represent features like buildings, roads, and natural elements standardized in different countries.

8. Why do maps usually have an arrow marked ‘N’?How does it help in finding directions?

Maps contain an arrow marked with the letter ‘N’ on the upper right side.

a. This arrow shows the North direction. It is called the north line.

b. With this, moving clockwise we find other directions east, south and west called cardinal points.

c. Other intermediate directions are: North-East (NE), South-East (SE), South-West (SW) and North-West (NW). With these, we can locate any place more accurately.

d. One can also know the directions with the help of the instrument called Compass.

9. What is a map? Explain the different types of map with examples.

A map is a representation or drawing of an area. The different types of maps are-

a. Physical maps, which mainly show some natural features such as mountains, oceans and rivers.

b. Political maps, which show details of countries or states, boundaries, cities, etc.

c. Thematic maps show a specific kind of information.

10. Differentiate between Local time and Standard time.

Local time and Standard time are related to longitude because the Earth is divided into time zones based on lines of longitude.

a. **Local Time :** This is determined by the position of the sun in the sky, which changes with longitudes because the Earth rotates, and different places see the sun at different times.

b. **Standard Time :** This is a uniform time used across a large area, like a country or region, to make it easier to coordinate activities. Each time zone has a standard time, which is usually set to match the local time at a central point within that zone.

As we move east or west, the local time changes by 1 hour for every 15 degrees of longitude, because the Earth rotates 15 degrees each hour.

Q.9 Towards being an Explorer-

A) **1) Latitudes-** These are the imaginary horizontal lines which run east-west, measuring distance north or south of the equator.

2) Longitudes- These are the imaginary vertical lines which run north-south, measuring distance east or west of the Prime Meridian.

B) **2-** East

3- North

4- South

5- North-west

6- North-east

7- South-west

8- South-east

C) **1.** Arctic circle (66.5^0 N)

2. Tropic of Cancer (23.5^0 N)

3. Equator (0^0)

4. Tropic of Capricorn (23.5^0S)

5. Antarctic circle (66.5^0S)

D) **1) 180^0 Meridian-** It is the meridian located exactly 180^0 east or west of Prime Meridian (0^0) in Greenwich, London. It is taken as the base for the IDL where crossing from east to west adds a day & west to east subtracts a day.

2) Prime Meridian- The 0^o line of longitude taken as the standard for measuring distance east and west and used for calculation of time zones. It passes through the Royal Observatory in Greenwich London divides the Earth into eastern & western hemisphere, opposite to 180^0 meridian.

E) Thematic Maps

F) **1) Latitudes or Parallels-** Thematic we are **181** in number

2) Longitudes or Meridians- we are **360** in number