

Hw = 16/7/21 Swarit Nath

1. Fill in the blanks.

VIB

1. The equator is  $0^\circ$  latitude, and is a great circle.
2. The antarctic circle is found in the eastern hemisphere.
3. The temperature zone falling between  $23\frac{1}{2}^\circ$  N and  $23\frac{1}{2}^\circ$  S, is called torrid zone.
4. The distance between lines of longitude closer towards the poles.

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5. The standard meridian of India is  $80^\circ$ .

II. True or false

1. A latitude is the angular distance from the equator of poles. False
2. All lines of latitude are of same length. False True
3. The north temperate zone lies to the north of arctic circle. True
4. The  $0^\circ$  longitude passes through the British royal observatory. True
5. A country can have more than one standard times. True

Multiple choice questions

1. Which of these statement is correct?  
Ans = (a) A globe is more accurate than a map as it follows the curvature of the earth. Therefore, it shows the correct shape.



and size of continents.

2. The axis of the earth is tilted at an angle of \_\_\_\_\_

Ans. 23 $\frac{1}{2}$ 's vertical

3. When you say that your school lies to the south of the airport, you are \_\_\_\_\_

Ans. giving the relative location of your school

4. Lines of latitude are imaginary lines \_\_\_\_\_

Ans. that run horizontally across the surface of the earth.

5. The equator is drawn \_\_\_\_\_

Ans. around the middle of the globe

6. Why is there an equal distribution of heat energy on the surface of the earth?

Ans. Due to the tilted nature of earth's axis, the angle of incidence of the sun's rays differ from place to place. The more slanting the rays, the less the heating that occurs. This causes the unequal distribution of heat energy across the surface of earth.

7. The torrid zone lies between the tropic of cancer and tropic of capricorn  
Ans =

8. The prime meridian  
Ans = Passes through the Greenwich, Eng<sup>l</sup> and, where the British Royal ~~is~~ observatory is located

9. In 1884, sir sandford Fleming divided the world into -  
Ans = 24 time zones

10. Why did India adopt the Indian Standard time (IST)?

Ans = (d.) All of the above

11. The time difference GMT and IST is

Ans =  $5\frac{1}{2}$  hours

12. If a person crosses the international date line while moving from the west to the east, he or she

Ans = lose a day

13. One degree of longitude is:

Ans = 4 minutes of time



14. The meridian that passes through Greenwich is called  
Ans: Prime meridian

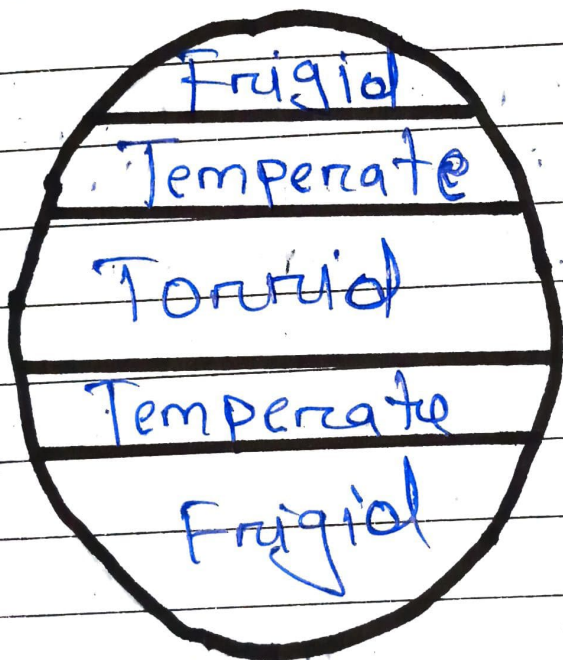
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Answer the following

1. Define the globe.

Ans. Globe is a miniature form of the earth.

2. Draw a neat diagram showing the temperature zones of the earth.



3. What makes the tropical zone the hottest among the temperature zones?

Ans. The tropical zone lies between the tropic of cancer and tropic of capricorn. The sun is over-



once in a year, on all the latitudes between these two tropics. The sun rays falling exactly overhead gives out more heat than slanting sun rays. Therefore torrid zone is the hottest zone.

4. Why is Bangladesh half an hour ahead?

Ans: Bangladesh standard time (BST) is technically GMT (+6:00). Indian standard time (IST) is usually GMT (+5:30). So there is a 30 min difference there.

5. What is 'Solar time'?

Ans: When sun rays directly overhead fall on a place, the place was considered to be noon. This is called local time or solar time.

6. Why is a standard meridian



important for a country?

Ans = Standard meridian is useful for a country because it shows and fixes a particular time for country. A country may have many longitudes in between and there is a time gap of 4 mins between each longitude. Therefore standard meridian should be there in each country for the equal time.

7. How can we measure the time difference between countries? Explain giving an example.

Ans = The earth has 360 imaginary lines called longitudes or meridians running vertically between the poles. Each of these longitude is called a degree. The degree longitude passing through the greenwich near London, is considered to be noon as



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Standard and the time of all other time zones are calculated accordingly. The time difference between each longitude (each degree) is 4 mins. So if it is 12 noon at Greenwich, (0 degree) it would be 12:04 pm at 1 degree meridian and so on. In India, the standard meridian is 82 $\frac{1}{2}$ -and-half degree. So the time difference between Greenwich and India is  $82.5 \times 4$  which is 330 mins (5 hrs 30 mins).

8. How are the lines of latitude and longitude useful to us?

Ans - As lines of latitudes and longitudes cross each other, they form a grid. Any position on earth can be located if the latitude and longitude are known. The grid on the

maps help us find a particular location. Longitudes also help us to calculate the time of a particular place.