

Class – 8: Questions for practice during the vacation

1. What unit of measurement is approximately equal to the distance between the sun and the earth? Mention how many units this is in kilometers.
2. Mention two differences between star and a Planet as seen during night sky.
3. Explain the difference between the geocentric and heliocentric models.
4. What are comets? Why are they seen only occasionally?
5. Describe the differences between the terrestrial and jovian planets.
6. Name and explain any three factors which individually or collectively made life possible on the Earth.
7. Explain with the help of a diagram, how Eratosthenes calculated the circumference of the Earth?
8. What are the various proofs given in support of spherical shape of the Earth in the past? Why do you think that the spherical shape of the Earth needs no proof any longer?
9. Name any five effects of Earth's rotation.
10. What is meant by inclination of earth's axis? What are its two main effects?
11. In which positions is the earth is closest and farthest from the sun? What are the distances and the dates on which they are closest and farthest?
12. Differentiate between a solar day and a sidereal day.
13. What is an equinox? How are they different from Solstice?
14. What makes day and night of equal duration throughout the world on vernal and autumnal equinoxes. Explain.
15. Draw a diagram of the position of the earth on 22 December. Draw and name the Equator, the Arctic and Antarctic circle, line of illumination and shade the area that will have 24 hours of darkness.
16. What is the speed of earth's rotation at i) Equator ii) 40° Latitude iii) Poles. What are the results of the differences in the earth's speed of rotation at various latitudes?
17. Explain what are solar and lunar eclipses and how they are caused. Why do eclipses not occur every fortnight?
18. When do you have New moon? Where does the moon appear (direction) after new moon?
19. What is a lunar month? Is this of the same duration from one new moon to the next? Why?
20. What is the importance of parallels and meridians in marking geographical locations? How many parallels can be drawn on a globe at an interval of ten degrees?
21. What is the relationship between the longitude of a place and the time of that place?
22. When it is 10.00am 1st October 2000 at Kolkota ($83^\circ 30'E$) what is the time and date at New York ($74^\circ W$)?
23. A ships Chronometer shows Greenwich mean time as 14.30 hours when the local time is 12 noon at the ship. Find out the longitude of the ship. Show your workings.

24. A cricket match commences at Delhi [77° E] at 10 am on Sunday. What will be the local time at Sydney [150° E] and New York [74°W]When the radio commntary is received? Show your workings clearly.
25. When it is 12 noon on Monday at Greenwich What is the local time at Tokyo [140°E]?
26. Explain why the atmosphere is heated from below. What examples can you give to prove this?
27. Name the important processes of heating and cooling of the atmosphere.
28. 'The atmosphere acts like a greenhouse on the earth' Explain.
29. What is insolation? Why is insolation called the most important controlling factor of climate?
30. What are the most important causes of temperature variation between different latitudes?
31. What is the difference between conduction, convection and radiation?
32. Approximately 50% of the solar radiation, which enters the atmosphere, reaches the Earth's surface. What processes keep the other 50% from reaching the surface?
33. What is an isotherm? Name two factors that cause irregularity in isotherms.
34. What is inversion of temperature? Name two ways by which it takes place.
35. Why does the land surface heat and cool more rapidly than the ocean surface? Give three reasons.
36. Where is the ozone layer found? What is its role?
37. What is meant by atmosperic pressure? Name two types of commonly used instruments to measure Atmospheric Pressure.
38. How does and why air pressure vary with height? How does temperature of a place affect its air pressure?
39. How is the sub-tropical high pressure belt formed? What causes low pressure in sub polar regions?
40. Draw a neat fully labelled diagram illustrating the difference between land and sea breezes.
41. What is cyclone? Mention two difference between tropical and temperate cyclone.
42. What is Coriolis force? Explain Ferrel's law.
43. Distinguish between absolute humidity and relative humidity. How is relative humidity calculated?
44. Usually wet bulb thermometer records a lower temperature than dry bulb thermometer. Why?
45. What causes dew? What is meant by dew point?
46. In what three ways does air get cooled? Explain.
47. What is the meaning of rainshadow? Name one part of indian sub-continent that experiences the rain shadow.
48. Differentiate fog and mist.
49. How is orographic rainfall different from convectional rainfall?
50. Describe the essential characteristics of cirrus, stratus and cumulus clouds.