

Class- 7

Sub- Geography

Ch- Air

1. Assertion (A): Exosphere is the most important layer of the atmosphere for living beings.

Reason (R): The exosphere contains gases like hydrogen and helium.

2. Assertion (A): Carbon dioxide is an essential gas that maintains the earth's temperature.

Reason (R): Carbon dioxide traps heat radiated from the earth's surface.

3. Statement I: Troposphere is the ideal layer for flying aeroplanes.

Statement II: Troposphere is full of weather disturbances and thick air.

4. Statement I: Seasonal winds blow throughout the year in a fixed direction.

Statement II: Monsoons are a type of seasonal wind that reverse direction with seasons.

5. The temperature in cities is often higher than nearby villages because:

- A. Villages have more vehicles and human activity.
- B. Cities have more trees to trap heat.
- C. Cities have buildings and roads that absorb and radiate heat.
- D. Village soils retain more sunlight.

6. Which of the following best explains the role of plants in maintaining oxygen levels in the atmosphere?

- A. Plants breathe in oxygen and exhale carbon dioxide.
- B. Plants use carbon dioxide during photosynthesis and release oxygen.
- C. Plants absorb nitrogen and release oxygen.
- D. Plants cool the air, reducing oxygen usage.

7. Which of the following is NOT a correct reason for global warming?

- A. Increased emission of carbon dioxide due to burning of fossil fuels
- B. Reduction in the number of green plants due to deforestation
- C. Rise in oxygen levels in the lower atmosphere
- D. Excessive industrial pollution adding greenhouse gases

8. Imagine your area is frequently affected by cyclones. What steps would you take to spread awareness and help your community stay safe?

Ans- The steps are-

- i) Organize awareness camps on cyclone safety in schools and community centers.
- ii) Distribute pamphlets explaining do's and don'ts during a cyclone.
- iii) Create emergency contact lists and share with all families.
- iv) Encourage tree plantation to reduce wind impact and soil erosion.
- v) Help identify safe shelters and evacuation plans for each area.

9. During summer, a student notices that his umbrella turns inside out due to strong winds, but the same doesn't happen in winter. Use your understanding of wind and air pressure differences to explain this seasonal change in wind behaviour.

Ans- Seasonal change in wind behaviour-

In summer, intense heat creates low-pressure areas as hot air rises. Cool air rushes in quickly, causing strong winds. These winds are powerful enough to turn umbrellas inside out. In winter, the temperature and pressure differences are less, so winds are gentler and do not affect the umbrella much.

10. Cities often record higher temperatures than nearby villages. How do surface materials and structures contribute to this temperature difference?

Ans- The contributions are-

- i) Concrete and asphalt in cities absorb more heat during the day.
- ii) Buildings and roads release stored heat slowly at night.
- iii) Lack of trees reduces natural cooling through shade and transpiration.
- iv) Vehicles and factories emit heat and gases, raising temperature.
- v) Tall buildings trap warm air, creating a heat island effect.