Social Science

Practice Test Paper 1

Understanding Society: India and Beyond

(Part 1 | Chapter 3: Atmosphere and Climate)

Class IX

Time Allowed: 45 Minutes | Maximum Marks: 25

General Instructions

1. All 13 questions are compulsory. The paper has four sections: A, B, C and D.
2. Section A - 5 marks; Section B - 8 marks; Section C - 9 marks; Section D - 3 marks.
3. Choose one correct option in Section A. Write clear, relevant answers in Sections B, C and D.
4. Study the images carefully before answering the related questions.

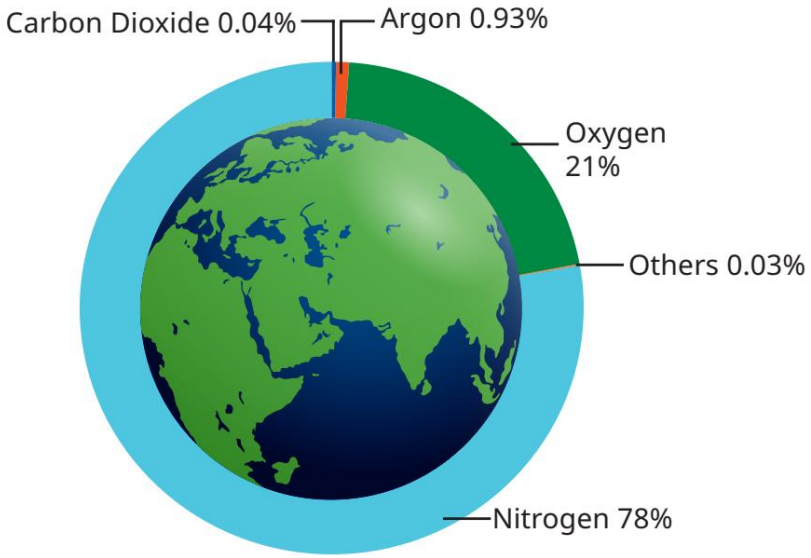
SECTION A

(5 questions × 1 mark = 5 marks)

1. The incoming solar energy received by the Earth is called:

(A) Insolation
(B) Air pressure
(C) Precipitation
(D) Humidity

2. Use the percentages in the diagram. What share of the atmosphere remains after nitrogen and oxygen are added together?



(A) 21%
(B) 57%
(C) 99%
(D) 1%

3. Smoke rises vertically on a calm day. Which wind-speed range matches this observation?

(A) 103–117 km/hr
(B) 39–49 km/hr
(C) 0–1 km/hr
(D) 6–11 km/hr

4. Which pair usually contains the coldest months of the winter season in India?

(A) June and July
(B) April and May
(C) December and January
(D) September and October

5. Which set contains only greenhouse gases named in the climate-change discussion?

(A) Nitrogen, oxygen and argon

(B) Helium, neon and xenon

(C) Oxygen, krypton and nitrogen

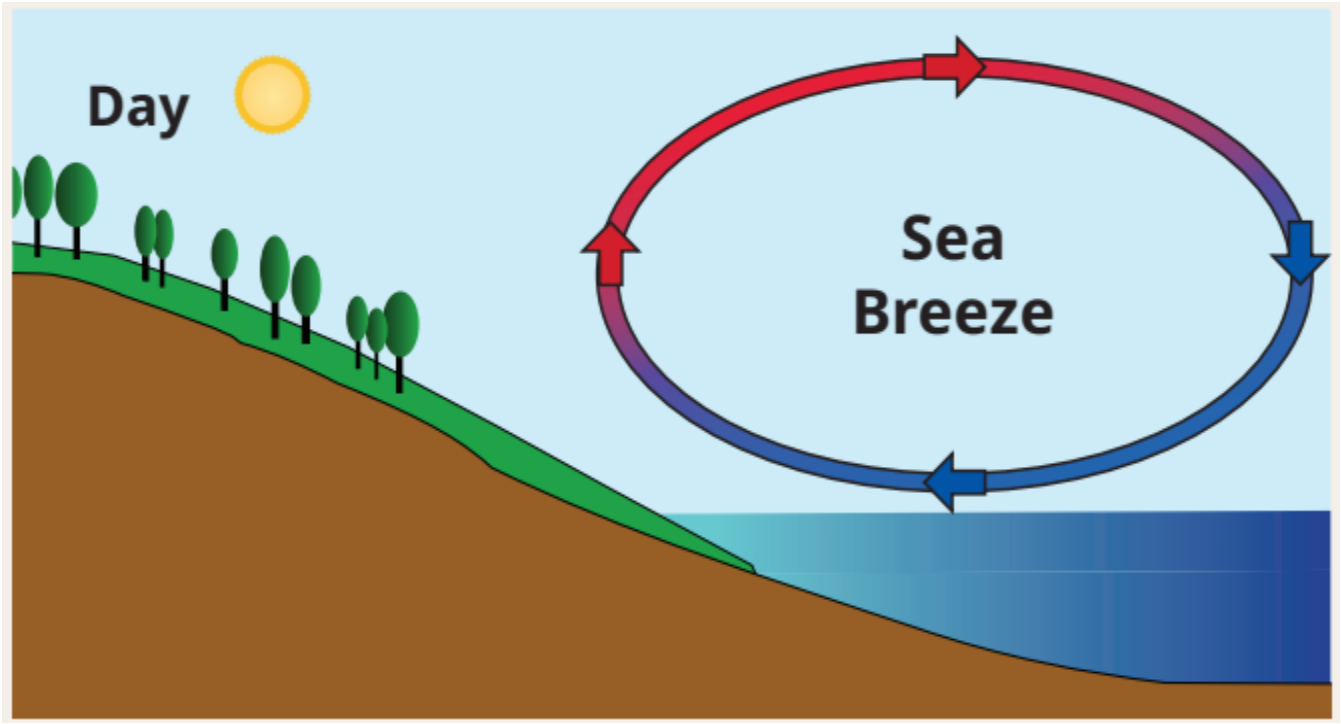
(D) Methane, nitrous oxide and water vapour

SECTION B

(4 questions × 2 marks = 8 marks)

6. How does the time period used to describe weather differ from that used to describe climate?

7. Follow the daytime air movement in the diagram. Explain why the wind blows from the sea towards the land.



8. On which two changing properties of air is the atmosphere's layered structure based? Explain their link with altitude.

9. What does the altitude of a place measure? Which level is taken as zero for this measurement?

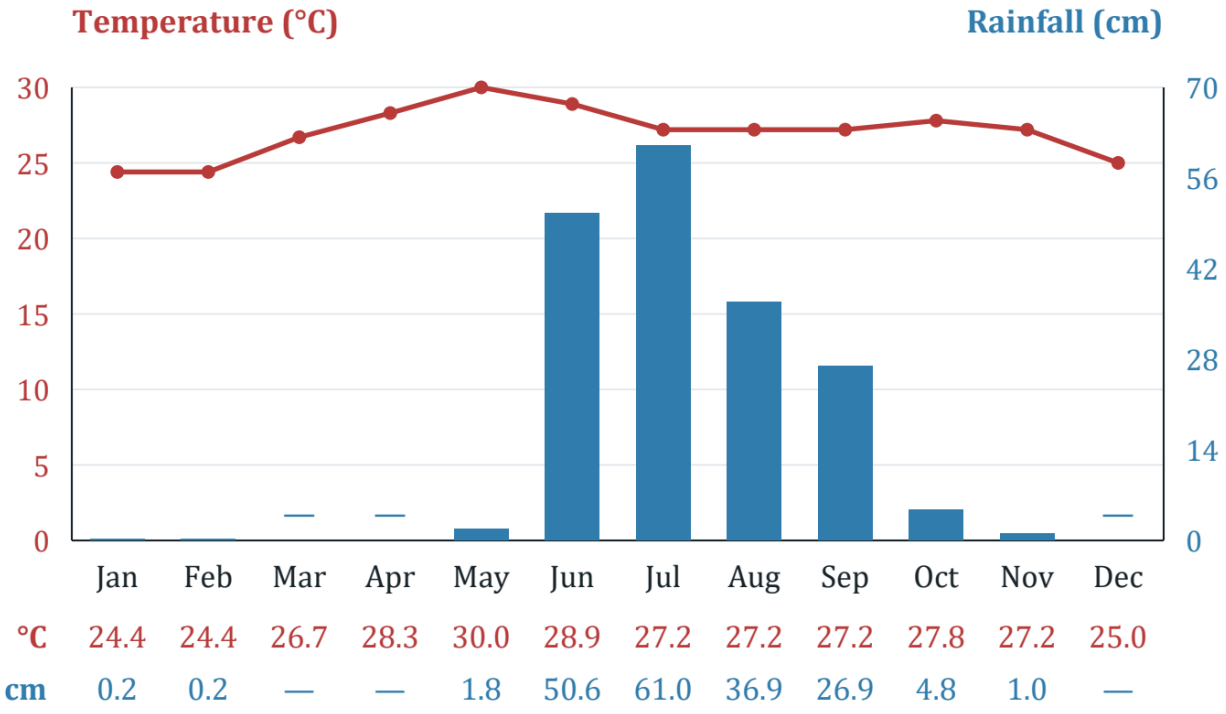
SECTION C

(3 questions × 3 marks = 9 marks)

10. Explain in three linked stages how human activities can increase the Earth's temperature through greenhouse gases.

11. A learner claims that Mumbai receives its rainfall evenly through the year. Test this claim using the graph: state your decision, compare May with June and July, and identify the main rainy season.

Mumbai - monthly climate



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
°C	24.4	24.4	26.7	28.3	30.0	28.9	27.2	27.2	27.2	27.8	27.2	25.0
cm	0.2	0.2	—	—	1.8	50.6	61.0	36.9	26.9	4.8	1.0	—

Representational data; — indicates no numerical entry.

12. Imagine that Earth had no atmosphere. Explain one consequence each for breathing, protection from solar radiation and temperature regulation.

SECTION D

(Application Based Question - 3 marks)

13. A pupil walks to school, frequently leaves unused appliances on, uses water judiciously, and reuses and recycles items. Give 1 point to each low-impact habit and 3 points to a high-impact habit. Walking, careful water use, and reuse and recycling are low-impact choices; frequently leaving appliances on is a high-impact choice.

(i) What is the pupil's total score for these four habits?

(ii) What will the total become if the pupil always switches unused appliances off?

(iii) Why is this change better for the pupil's carbon footprint?