



परमाणु ऊर्जा शिक्षण संस्था /Atomic Energy
Education Society

कार्यपत्रक / Worksheet (2025-26)

ANSWER KEY

कक्षा /Class: VIII विषय //Subject: Science माह/ Month: January

अंक/Marks:80

I. Multiple Choice Questions (MCQs)

1. b) Low pressure + high temperature
2. a) Saturated
3. c) Chromatography
4. b) Regular
5. b) Stratosphere
6. c) Vitamin C
7. c) Pollution
8. b) Reflection
9. b) Microscope
10. b) Time
11. b) Solution
12. b) Carbon dioxide
13. c) Solids
14. a) Virtual
15. b) Condensation of water vapour
16. a) Organism → Community → Ecosystem

II. Assertion–Reason

17. A – Both are true and Reason correctly explains Assertion
18. D – Assertion is false, Reason is true

19.A – Both are true and Reason explains Assertion

20.B – Both are true but Reason does not explain Assertion

III. Case Study 1 –

21. Warm sea water heats air, causing it to rise and create a low-pressure area, initiating cyclones.

22. (Any two)

- Evacuate to safe shelters
- Store food, water and first-aid kits
- Switch off electricity

23. Winds move from high-pressure areas to low-pressure areas in a spiral due to Earth's rotation.

24. Weather forecasts help people prepare in advance and reduce loss of life and property.

IV. Case Study 2 – Water Pollutants & Solutions

25. Excess chemicals reduce oxygen levels, harming fish and aquatic organisms.

26. It represents a saturated solution, as excess solute is dissolved beyond safe limits.

27. Dilution, filtration, or treatment through water purification plants.

28. Natural purification removes pollutants and maintains ecological balance.

V. Short Answer (2 Marks)

29. A balanced diet contains all nutrients in proper amounts; e.g., rice and vegetables.

30. Atmospheric pressure is the force exerted by air on Earth's surface.

31. Element: pure substance (iron); Compound: chemical combination (water).

32. Rainbow forms due to refraction, dispersion and reflection of sunlight in water droplets.

33. Temperature and nature of solute.

34. Ray diagram showing image formation by concave mirror.

35. A sundial uses the Sun's shadow to tell time.

36. Oxygen supply and prevention of soil erosion.

37. Trapping of heat by greenhouse gases; causes global warming.

VI. Short Answer (3 Marks)

38. The water cycle involves evaporation, condensation and precipitation.

39. A food chain shows energy transfer between organisms; it maintains balance.

40. Sky appears blue due to scattering of sunlight by air molecules.

41. Solutions form when solute dissolves uniformly in solvent.

42. Unequal heating of Earth creates pressure differences causing winds.

43. Use biodegradable products, treat waste, reduce chemicals.

44. Lenses magnify objects by refraction of light.

45. The Sun's position and shadows help measure time.

VII. Long Answer (5 Marks)

46. Cyclones

Cyclones are caused by low pressure over warm seas. Warm air rises, cools and condenses, releasing energy that strengthens winds. Cyclones cause heavy rain, floods and destruction. Safety measures include early warning, evacuation, securing houses and emergency kits.

47. Earth's Life-Sustaining Systems

Earth supports life through the interaction of atmosphere (air), hydrosphere (water), lithosphere (land) and biosphere (living organisms). These systems work together to regulate climate, provide resources and maintain ecological balance.