



परमाणु ऊर्जा शिक्षण संस्था /Atomic Energy Education Society
कार्यपत्रक / Worksheet (2025-26)

कक्षा /Class: VIII विषय //Subject: Science माह/ Month: January अंक/Marks: 80

दिया गया पाठ्यक्रम /Portion covered: 3,6,8,9,10,11,12,13

MULTIPLE CHOICE QUESTIONS (1 MARK EACH)

1. What is the primary cause of cyclones?
a) High pressure + low temperature b) Low pressure + high temperature
c) High pressure only d) Equal pressure all around
2. A solution in which no more solute can dissolve is called
a) Saturated b) Unsaturated c) Supersaturated d) Concentrated
3. Which one is not a method of separating mixtures?
a) Filtration b) Distillation c) Chromatography d) Evaporation
4. The reflection of light from a smooth surface is called
a) Diffuse b) Regular c) Scattered d) None
5. Which layer protects Earth from harmful UV radiation?
a) Troposphere b) Stratosphere c) Mesosphere d) Thermosphere
6. Vitamin ___ helps in repair and maintenance of body tissues.
a) A b) B c) C d) D
7. The imbalance between nature's components leads to
a) Biodiversity b) Ecological balance c) Pollution d) Harmony
8. A beam of light that returns back to the same medium is called
a) Refraction b) Reflection c) Diffusion d) Absorption
9. Which device uses a convex lens to form an image?
a) Candle b) Microscope c) Hair dryer d) Fan
10. The apparent change in position of celestial bodies helps us know
a) Seasons b) Time c) Pollution d) Rocks
11. A homogeneous mixture is also called
a) Suspension b) Solution c) Colloid d) Alloy
12. Which one is a greenhouse gas?
a) Oxygen b) Carbon dioxide c) Nitrogen d) Argon
13. Solubility increases with temperature in
a) Gases b) Liquids c) Solids d) Both
14. If you see the image in a plane mirror, it is
a) Virtual b) Real c) Inverted d) Diminished
15. Clouds form due to

- a) Heating of land b) Condensation of water vapour
- c) Wind only d) Earthquake

16. The correct sequence of ecological levels is

- a) Organism → Community → Ecosystem
- b) Ecosystem → Community → Population
- c) Species → Organism → Population
- d) Community → Species → Biosphere

ASSERTION REASON BASED QUESTIONS(1 MARK EACH)

Select the correct option for the following questions;

Options:

- a) Both A and R are true, and R is the correct explanation of A.
- b) Both A and R are true, but R is not the correct explanation of A.
- c) A is true, but R is false.
- d) A is false, but R is true.

17. Assertion: Cyclones form due to low atmospheric pressure.

Reason: Warm, moist air rises and creates low pressure at the surface.

18. Assertion: Mixtures cannot be separated into their components.

Reason: Mixtures retain the properties of their components.

19. Assertion: Time-keeping using stars is more accurate than shadows.

Reason: Celestial motions are periodic and predictable.

20. Assertion: Ecosystems maintain balance by recycling nutrients.

Reason: Energy flows in one direction through a food chain.

CASE BASED QUESTION (1 MARK EACH)

CASE 1) Today, meteorologists predict a cyclone forming in the Bay of Bengal. People living in coastal areas are advised to evacuate to safer zones. Community leaders urge storing clean water, food packets, and first-aid kits. Students learn that low pressure centre plus warm winds over the sea causes the cyclone's spiral movement.

- 21. Why does low pressure over warm sea areas trigger a cyclone?
- 22. List two safety measures a household should follow during a cyclone.
- 23. Explain with a diagram how wind movement forms around a low-pressure centre.
- 24. Why is it important to follow weather forecasts in such conditions?

CASE 2) A town's lake starts showing fish deaths. Tests show increased chemical runoff from nearby fields into the lake. Students investigate how increased solutes change water quality and how solutions can help restore it.

- 25. How can excess dissolved chemicals harm aquatic life?

26. What type of solution does polluted water represent (unsaturated/saturated)? Explain.
27. Suggest a method to reduce chemical concentration in the lake water.
28. Describe the role of natural purification in maintaining ecosystem health.

SHORT ANSWER TYPE QUESTIONS- TYPE I (2 MARKS EACH)

29. Define balanced diet with two examples.
30. What is atmospheric pressure?
31. Differentiate element and compound with one example each.
32. What causes a rainbow to form?
33. State any two factors affecting solubility.
34. Draw a diagram of light forming an image in a concave mirror.
35. What is a sundial? How does it help in telling time?
36. Name two ecological services provided by forests.
37. What is the greenhouse effect? Give one consequence.

SHORT ANSWER QUESTIONS TYPE -II (3 MARKS EACH)

38. Explain the water cycle with a labeled diagram.
39. Describe the food chain and its importance in an ecosystem.
40. Why does the sky appear blue?
41. Explain the process of solution formation.
42. How do winds form?
43. Discuss any three measures to prevent soil and water pollution.
44. Explain how lenses help in the formation of images in microscopes.
45. Describe how time can be measured using the position of the Sun.

LONG ANSWER QUESTIONS (5 MARKS EACH)

46. Describe the causes, effects and safety measures of cyclones. Include a diagram.
47. Discuss Earth's life-sustaining systems (atmosphere, hydrosphere, lithosphere, biosphere) and explain how they interact to support life.

