

ARWACHIN BHARTI BHAWAN SR SEC SCHOOL

UNIT TEST – 2 (SESSION 2026-2027)

SUBJECT – SCIENCE

CLASS – VIII

(SET-B)

Time:-1hr.

M.M-20

Q-1 Tick the correct answer.

5M

- a) Which statement best explains why solutions are called homogeneous mixtures?
 - i) The particles settle at the bottom
 - ii) The components are visible separately
 - iii) The composition remains uniform throughout
 - iv) The solvent changes into solute
- b) Which observation best proves that iron and sulphur have formed a compound after heating?
 - i) The colour changes slightly
 - ii) A magnet can no longer separate iron particles
 - iii) The mixture becomes warm
 - iv) Sulphur melts completely
- c) A student filtered a salt solution and observed that no residue remained on the filter paper. This is because:
 - i) Salt particles are heavier than water
 - ii) Salt reacts chemically with water
 - iii) Dissolved salt particles are too small to be trapped
 - iv) Filter paper dissolves salt
- d) Which of the following combinations represents only pure substances?
 - i) Air and brass
 - ii) Water and oxygen
 - iii) Soil and water
 - iv) Milk and copper
- e) A student added more salt to a solution, but the extra salt remained undissolved at the bottom. The solution is:
 - i) Dilute
 - ii) Unsaturated
 - iii) Saturated
 - iv) Insoluble

Q-2 Assertion and reason question.

2M

- 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

i) Assertion (A): Water can be separated into hydrogen and oxygen only by physical methods.

Reason (R): Compounds are formed by chemical combination of elements.

ii) Assertion (A): A saturated solution contains less solute than an unsaturated solution at the same temperature.

Reason (R): A saturated solution cannot dissolve more solute at a given temperature.

Q-3 Answer the following questions.

10M

- a) A student prepared two solutions using equal amounts of water and sugar. One was stirred continuously while the other was left still. Which solution would form faster and why?
- b) A student says, "Every pure substance is an element." Is the statement correct? Give reason.
- c) A muddy water sample was filtered. The water became clearer but still tasted salty. What can you conclude from this observation?
- d) Why are alloys like brass considered mixtures even though they look uniform
- e) Define the term density and mention its SI unit.

Q-4 A mixture contains rice grains, salt, iron pins, and mustard seeds. Design a sequence of separation methods to obtain each substance separately. Also explain why the order of separation is important.

3M