Class 9 Practice based question Is matter around us pure solved test paper - 5

Q. 1. The process used to separate ammonium chloride from mixture of sand and common salt is :

(a) sublimation (b) evaporation (c) centrifugation (d) winnowing

Q. 2. A few pieces of zinc were treated with dilute H_2SO_4 in a test-tube. Which of the following observations is correct.

(a) It is a physical change and zinc dissolves.

(b) It is a chemical change and zinc dissolves with the evolution of H_2 gas.

(c) It is a chemical change, zinc dissolves.

(d) It is a physical change and H_2 gas is evolved.

Q. 3. Which of the following will show Tyndall effect ? (Board Term I 2013, AGRO 94)

(a) soda water (b) salt solution

(c) chalk in water (d) milk in water.

Q. 4. On adding zinc to sulphuric acid, hydrogen gas and zinc sulphate solution is formed. The colour of zinc sulphate solution formed is : (Board Term I 2013, OAHJD6N)

(a) light blue (b) light yellow

(c) light green (d) colourless.

Q. 5. Out of the following substance which does not undergo sublimation is :

(a) dry Ice (b) camphor

(c) sand (d) iodine.

Q. 6. Four students (A), (B), (C) and (D) observed the colour and solubility of iron, sulphur and iron sulphide in carbon disulphide. The tick mark (3) represents soluble and cross mark (5) represent insoluble in carbon disulphide. Their observations are tabulated below :

(Board Term I 2013, 7ZTHA8G)

Student	Colour			Solubility in carbon disulphide		
	Iron	Sulphur	Iron sulphid	Iron	Sulphur	Iron sulphide
(A)	Yellow	Silvery	Greyish silver	(3)	(5)	(3)
(B)	Silvery	Orange	Reddish brown	(5)	(3)	(3)
(C)	Grey	Yellow	Greyish black	(5)	(3)	(5)
(D)	Silvery	White	Silvery white	(3)	(5)	(5)

In the table correctly reported observations is of student :

(a) A (b) B (c) C (d) D

Q. 7. The magnesium oxide obtained on burning magnesium in air appears to be like — (Board Term I 2013, 7ZTHA8G)

(a) powdered chalk (b) common salt

(c) wood ash (d) powdered sugar.

Q. 8. A mixture can be characterized by : (Board Term I 2013, 7ZTHA8G)

(a) no fixed composition of the components.

(b) homogeneity

(c) no occurrence of chemical reaction

(d) heterogeneous.

Q. 9. To test the properties of iron sulphide formed it should be taken in the form of :

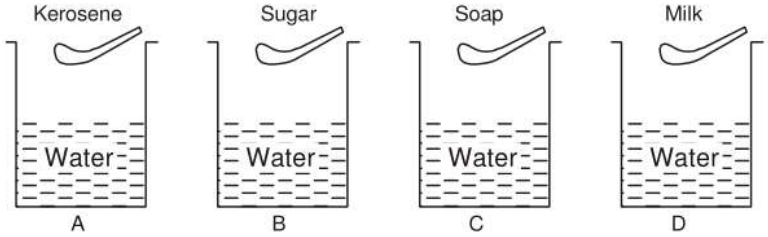
(a) lumps (b) small pieces (c) powder (d) its solution.

Q. 10. When a mixture of sand, sodium chloride and ammonium chloride is heated in a China dish, dense white fumes are evolved. On cooling these fumes on a glass plate a white deposit is obtained. The white deposit may be : (Board Term I, 2012 Set-015)

(a) sodium chloride (b) sand

(c) sodium chloride and ammonium chloride (d) ammonium chloride

Q. 11. The following substances are added to water in a beaker as shown below. The mixture is stirred well. A true solution is found in the beaker : (Board Term I, 2012 Set-046)



(a) A (b) B (c) C (d) D

Q. 12. When we heat a mixture of iron and sulphur for a short time and then move a magnet over it, the observation made is : (Board Term I, 2012 Set-048)

(a) iron gets attracted

(b) sulphur gets attracted

(c) iron and sulphur both get attracted

(d) iron, sulphur as well as the product formed all get attracted

Q. 13. The gas evolved when zinc reacts with dilute sulphuric acid is : (Board Term I, 2012 Set-015)

(a) colourless, odourless, burns with a pop sound

(b) colourless, foul smelling, burns with a pop sound

(c) colourless, pungent smelling, burns with a pop sound

(d) brown coloured, pungent smelling, does not burn

Q. 14. Mohan heated a mixture of sulphur and iron filings in a China dish till a grey-black product was formed. On adding carbon disulphide and stirring the contents he observed that : (Board Term I, 2012 Set-035)

(a) particles of sulphur dissolve (b) particles of iron dissolve

(c) grey black product dissolves (d) no change takes place

Q. 15. When we burn a cleaned piece of magnesium ribbon in air, we observe : (Board Term I, 2012 Set-065)

(a) a white dazzling light while burning (b) a white residue left after burning.

(c) a black residue left after burning (d) (a) and (b)

Q. 16. The correct sequence of steps taken for separating the mixture of ammonium chloride, sand and common salt is : (Board Term I, 2012 Set-020)

(a) filtration, evaporation, sublimation and dissolving in water

(b) sublimation, dissolving in water, filtration and evaporation

(c) filtration, dissolving in water, sublimation and evaporation

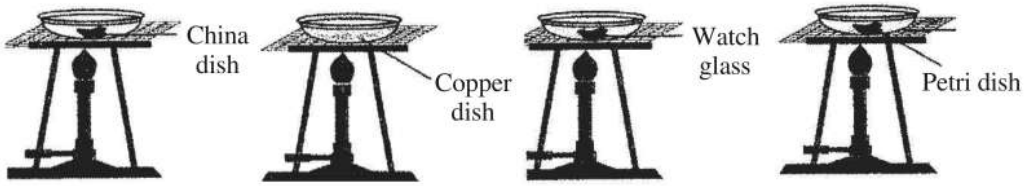
(d) evaporation, dissolving in water, filtration and sublimation

Q. 17. A student was asked to prepare a true solution of sugar in water. By chance, he added sugar in excess. He stirred for quite some time but some of it settled down. He filtered the contents. The filtrate will be : (Board Term I, 2012 Set-020)

(a) true solution (b) colloidal solution

(c) suspension (d) can be true solution or colloidal solution.

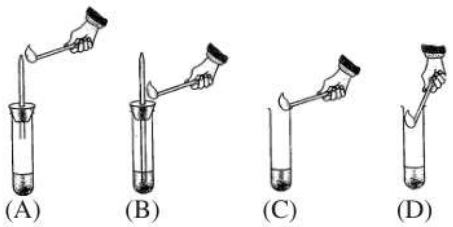
Q. 18. The correct procedure for heating a mixture of iron filings and sulphur powder is :
(Board Term I, 2012 Set-028)



(I) (II) (III) (IV)

(a) (I) (b) (II) (c) (III) (d) (IV)

Q. 19. Ankur was doing an experiment to carry out the reaction of zinc granules with dil. sulphuric acid. He observed that a gas is being evolved. The safest method to detect whether the gas produced in the reaction is hydrogen is : **(Board Term I, 2012 Set-020)**



(a) (A) (b) (B) (c) (C) (d) (D)

Q. 20. When a magnet is moved repeatedly through a mixture of iron filings and sulphur powder, the observation which is correct is : **(Board Term I, 2012 Set-021)**

(a) iron fillings will stick to the magnet
(b) a black mass of iron sulphide will be produced
(c) sulphur powder will be left in a tray
(d) both (a) and (c)

Q. 21. An iron nail is placed in a beaker containing copper sulphate solution. In the beaker, a sensitive thermometer is suspended and the temperature of copper sulphate solution is recorded. The nail is taken out after 10 minutes and the temperature is again recorded. The thermometer at the end of experiment records : **(Board Term I, 2012 Set-035)**

(a) higher temperature
(b) lower temperature
(c) no change in temperature
(d) change in temperature depends upon the amount of copper sulphate solution taken

Q. 22. While heating a mixture of ammonium chloride and sodium chloride, it is advised to keep your face away from the apparatus because : **(Board Term I, 2012 Set-021)**

(a) ammonium chloride vapours may cause irritation to eyes and nose
(b) sodium chloride vapours may cause irritation to eyes
(c) chlorine vapour may cause irritation to eyes
(d) ammonium vapours may block nose

Q. 23. Out of the given four mixtures, the one that appears clear and transparent is :
(Board Term I, 2012 Set-060)

(a) sugar and water (b) sand and water
(c) starch and water (d) chalk powder and water

Q. 24. When a mixture of common salt, ammonium chloride and sand is subjected to heat then the component(s) that will sublime off is : (Board Term I, 2012 Set-077)

(a) common salt (b) ammonium chloride

(c) both (a) and (b) (d) sand

Q. 25. Neeta observed that a precipitate is formed when she adds : (Board Term I, 2012 Set-065)

(a) barium chloride to sodium sulphate (b) barium chloride to sodium chloride

(c) sodium sulphate to sodium chloride (d) hydrochloric acid to barium chloride

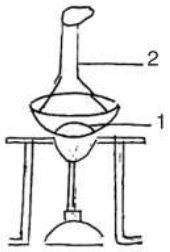
Q. 26. Raghav added dilute hydrochloric acid to granulated zinc in a test-tube. The observation made is : (Board Term I, 2012 Set-048)

(a) the surface of the metal turns shining

(b) the reaction mixture turns milky (c) greenish yellow gas is evolved

(d) a colourless and odourless gas evolves with bubbles

Q. 27. The following diagram illustrates the method of separation of mixture of sand, ammonium chloride and common salt. In this diagram the component 1 and 2 after heating will respectively be : (Board Term I, 2012 Set-051)



(a) (common salt + sand) and ammonium chloride

(b) ammonium chloride and (common salt + sand)

(c) (ammonium chloride + sand) and common salt

(d) (ammonium chloride + common salt) and sand

Q. 28. To prepare iron sulphide in the school laboratory we heat the mixture of iron filings and sulphur powder in : (Board Term I, 2012 Set-051)

(a) petri dish (b) copper dish (c) china dish (d) watch glass

Q. 29. We will observe a precipitation to occur in the solution when : (Board Term I, 2012 Set-020)

(a) barium chloride is added to sodium chloride

(b) barium chloride is added to sodium sulphate

(c) sodium sulphate is added to sodium chloride

(d) sodium sulphate is added to barium sulphate

ANSWERS

1. (a)	**2.** (b)	**3.** (d)	**4.** (d)	**5.** (c)	**6.** (c)	**7.** (c)	**8.** (a)	**9.** (c)
10. (d)	**11.** (b)	**12.** (a)	**13.** (a)	**14.** (d)	**15.** (d)	**16.** (b)	**17.** (a)	**18.** (a)
19. (a)	**20.** (d)	**21.** (a)	**22.** (a)	**23.** (a)	**24.** (b)	**25.** (a)	**26.** (d)	**27.** (a)
28. (c)	**29.** (b).							

ANSWERS WITH EXPLANATION

1. (a) A mixture of common salt and ammonium chloride can be separated by sublimation.

2. (b) When Zn reacts with dilute H_2SO_4, zinc sulphate is formed and H_2 gas evolved. It is a chemical change as new substance is formed.

3. (d) Milk shows Tyndall effect.

4. (d) Zinc sulphate solution is colourless.

5. (c) Dry Ice, Camphor and Iodine are sublimates.

6. (c) Correct observation.

7. (c) Magnesium oxide appears to be as wood ash.

8. (a) In a mixture, the components are not in a definite ratio.

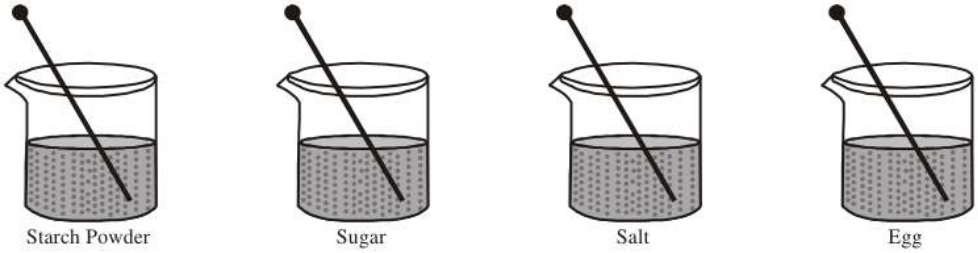
9. (c) FeS should be taken in the form of powder.

10. (d) Ammonium chloride is a sublime substance.

11. (b) Sugar and water forms homogeneous solution.
12. (a) Sulphur is not a magnetic material.
13. (a) Hydrogen gas is evolved.
14. (d) On heating a compound insoluble in carbon disulphide is formed.
15. (d) Mg ribbon burn to form magnesium oxide.
16. (b) Sublimation, dissolving in water, filtration and evaporation.
17. (a) Sugar and water forms homogeneous solution.
18. (a) China dish should be used to heat the chemicals.
19. (a) Experimental precaution.
20. (d) Iron is a magnetic material.
21. (a) Higher temperature will be shown due to displacement by iron nail.
22. (a) Ammonium chloride vapours may cause irritation to eyes and nose.
23. (a) Sugar and water forms homogeneous mixture.
24. (b) Ammonium chloride is a sublime substance.
25. (a) When barium chloride is added to sodium sulphate white ppt. of barium sulphate is formed.
26. (d) Hydrogen gas is evolved.
27. (a) (Common salt + sand) and ammonium chloride.
28. (c) China dish will not show any reaction with iron filings and sulphur powder.
29. (b) When barium chloride is added to sodium sulphate white ppt. of barium sulphate is formed.

Practical Based (Short Answer Type Questions) *[2 mark each]*

Q. 1. Four students A, B, C and D are asked to prepare colloidal solutions. The following diagrams show the preparation done by them. Name the student, who will be able to prepare colloidal solutions. Write two properties of colloidal solution. (Board Term I 2013, 7ZTHA8G)



(A) (B) (C) (D)

Ans. Student D will be able to prepare the colloidal solution as egg is not completely miscible in water.
Two properties of colloidal solution are :
1. Particles of colloidal solutions cannot be separated.
2. A colloidal solution appears to be homogeneous but actually it is a heterogeneous mixture of solute and solvent.

Q. 2. Four students were asked to add water to glucose powder, milk, sand and soil separately in four beakers. Classify the mistures as true solution, colloid and suspension. (Board Term I 2013, OAHJD6N)

Ans. True solution : glucose powder with water
Colloidal solution : milk with water
Suspension : snad with water, soil with water.

Q. 3. In an experiment to separate the components of a mixture of sand common salt and ammonium chloride, which component will be removed by filtration ?

Ans. Sand as it is insoluble in water.

Q. 4. A mixture of Ammonium chloride and sodium chloride heated in the apparatus of sublimation. After the experiment, at which place ammonium chloride will be obtained.

Ans. It is obtained in Inverted funnel.

Q. 5. While heating the mixture of sand, common salt and ammonium chloride in the experiment mention the residue left behind in the china dish ?

Ans. On heating the mixture ammonium chloride will be obtained on the walls of the inverted funnel. The left behind in the china dish contains sand and common salt.

Q. 6. How does sand and common salt separated in the experiment ?

Ans. Sand and common salt are dissolved in water but the sand does not dissolve and settle down in water. Sand is filtered from the mixture by using filter paper. Sand is separated as residue and on heating the mixture, water evaporates and common salt is obtained.

Q. 7. Name other two substances which undergo sublimation .

Ans. Camphor, Iodine