

SUMMATIVE ASSESSMENT –I (2011)
SCIENCE-SC1 QP 470011
Class – IX (Chemistry)

Time allowed: 1 hour

Maximum Marks: 30

General Instructions:

- (i) The question paper comprises of two sections, A and B. You are to attempt both the sections.
- (ii) All questions are compulsory.
- (iii) There is no overall choice. However, internal choice has been provided in all the five questions of five marks category. Only one option in such questions is to be attempted.
- (iv) All questions of section A and all questions of section B are to be attempted separately.
- (v) Questions 1 to 3 in section A are one mark questions. These are to be answered in one word or in one sentence.
- (vi) Questions 4 to 7 in section A are two marks questions. These are to be answered in about 30 words each.
- (vii) Questions 8 to 19 in section A are three marks questions. These are to be answered in about 50 words each.
- (viii) Questions 20 to 24 in section A are five marks questions. These are to be answered in about 70 words each.
- (ix) Questions 25 to 42 in section B are multiple choice questions based on practical skills. Each question is a one mark question. You are to select one most appropriate response out of the four provided to you.

Section A

1. What is dry ice ? What happens when the pressure under which it is stored is decreased to 1 atmosphere ?
2. Why is glass or chinaware packed with straw ?
3. Name the processes by which CO_2 and H_2O move into and out of the cell ?
4. List in tabular form any two differences between homogeneous and heterogeneous mixtures.
8. (a) Define evaporation.
(b) Explain how the following factors affect the rate of evaporation of a liquid : (i) temperature of the liquid. (ii) area of the exposed surface. (iii) moisture in the surrounding air. (iv) increase in wind speed.
9. (i) Name the process or the separation technique you would follow to separate : (a) Dyes in black ink (b) Butter from cream (c) Ammonium chloride and common salt (d) Iron filings and sand (ii) State the principle used in separation by centrifugation.

20.Based on the following characteristics distinguish in tabular form the behaviour of true solution, suspension and colloidal solution. (a) appearance (b) visibility (c) filterability (d) Tyndall effect (e) particle size

OR

(a) What is distillation ? List the two conditions essential for using this as a method of separation of components of a mixture. (b) Draw a labelled diagram of the apparatus used to separate a mixture of two miscible liquids.

21.Compare in tabular form , the properties of Solids, Liquids and Gases with respect to : (i) Shape (ii) Volume (iii) Compressibility (iv) Diffusion (v) Fluidity or Rigidity

OR

Account for the following : (a) For any physical state of a substance, the temperature remains constant during its change of state. (b) Water kept in an earthen pot becomes cool in summer. (c) We are able to sip hot tea from a saucer rather than from a cup.

Section B

25.If common salt is added to the unsaturated solution of water and common salt it will (a) become a colloid (b) become a suspension (c) start showing Tyndall effect (d) remain a true solution

26.A student was asked to mix the white of an egg with water and stir well. The student observed that (a) a transparent solution is formed. (b) a translucent mixture is formed. (c) egg white settles down at the bottom. (d) egg white floats on the surface.

27.The reaction of iron and sulphur to form iron sulphide takes place at : (a) at high temperature (b) in the presence of a catalyst (c) at moderate temperature (d) in the presence of an acid

28.Which of the following compounds when dissolved in water gives coloured solution ? (a) barium chloride (b) sugar solution (c) sodium chloride (d) copper sulphate

29.For determining the accurate melting point of ice we should prefer (a) ice made from distilled water (b) ice made from tap water (c) crushed dry ice mixed with salt (d) a mixture of ice and salt

30.Mohan used a thermometer having 20 divisions between 30degC mark and 40degC mark. While determining boiling point of water using this thermometer he observed that the level of mercury becomes constant just 3 division below the 100o C mark. Mohan should record in his

note book (a) Least count= 0.5°C , B.P.= 97°C (b) L.C.= 0.5°C , B.P.= 98.5°C (c)

L.C.= 1°C , B.P.= 98.5°C (d) L.C.= 1°C , B.P.= 97°C

31. Ramu was asked to separate a mixture of common salt and ammonium chloride.

Sublimation is used to separate ammonium chloride because : (a) ammonium chloride sublimes (b) ammonium chloride changes directly from solid to gaseous state on heating (c) mixture contain a sublimable volatile component and a non Sublimable impurity (salt) (d) all the above

32. Which is the correct colour sequence of iron filings, sulphur and iron sulphide ? (a) Greyish black, yellow, black (b) Black, yellow, brown (c) Brown, yellow, black (d) Black, yellow, greyish black

33. The colour of magnesium after rubbing with sand paper is (a) Silvery white (b) Grey (c) Black (d) Brown

34. Common salt and sand can be separated by : (a) Filtration (b) Crystallisation (c) Sedimentation and Decantation (d) First dissolving in water, then by filtration and followed by crystallisation.

35. A student put five raisins each in two beakers A and B. Beaker A contained 20 mL of distilled water and beaker B has 20 mL of saturated sugar solution. After some time the student would observe that : (a) raisins in beaker A were more swollen than those in beaker B. (b) raisins in beaker B were more swollen than those in beaker A. (c) raisins in both beakers A and B were equally swollen. (d) raisins in beaker A did not swell up at all.

36. In the preparation of temporary mount of onion peel which of the following is not used : (a) water (b) glycerine (c) safranin (d) alcohol

37. Arun, Deepa, Uma and Priya were asked to select a plant material which would not give blue black colour with iodine solution. Who did not select the right material ? (a) Arun selected maize grains. (b) Deepa selected wheat grains. (c) Uma selected ground nut seeds. (d) Priya selected potato.

38. Deepak washed a few grains of tur dal in water. The water became yellow. He then added a few drops of HCl to the same test tube, the water turned pink in colour. From the above test Deepak concluded that tur dal contains. (a) proteins (b) starch (c) turmeric (d) metanil yellow HCl

41. A student recorded the mass of dry raisins as 2.5g and the mass of raisins after soaking in water as 4 g. While performing the above experiment. The percentage of water absorbed by raisin is : (a) 20% (b) 30% (c) 60% (d) 40%

SUMMATIVE ASSESSMENT –I (2011)
SCIENCE-SC1 QP 470013
Class – IX (Chemistry)

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Section A

- 1. What happens when you pour some acetone on your palm ?
- 2. In a high jump athletic event the athletes are made to fall on a cushioned bed. Why ?
- 3. Name the plastid which stores starch, oils and protein granules.
- 4. What is a solution ? On which factor does a solution said to be diluted, concentrated or saturated ?
- 8. Give reason : (a) Water droplets appear on the outer surface of a tumbler containing ice cold water. (b) People prefer to wear cotton clothes in summer. (c) On a hot sunny day people sprinkle water on the roof or open ground.
- 9. State the separation technique you would apply for the separation of the following ? (a) Sodium chloride from its solution in water (b) Tea leaves from tea (c) Iron pins from sand (d) Different pigments from an extract of leaves (e) Butter from curd (f) Fine mud particles suspended in water.
- 20. (a) State any two differences between mixture and compound.

(a) Draw a labelled diagram of the experimental set up used for fractional distillation. How is this set up different from simple distillation ?

OR

(a) Write any two differences between chemical change and physical change. (b) State one instance where water undergoes a physical change and one in which it undergoes a chemical change. (c) Mention any two applications of chromatography.

21. List three characteristics of particles of matter. Describe one example for each characteristic to illustrate it. Name the characteristics which are responsible for (a) spreading of smell of scent in a room and (b) water taking shape of the vessel in which poured.

OR

The temperature-time graph given below shows the heating curve for pure wax. From the graph answer the following.

- (a) What is the physical state of the substance at the points A, B, C and D ?
- (b) What is the melting point of the substance ?
- (c) What is its boiling point ?
- (d) Which portions of the graph indicate that change of state is taking place.
- (e) Name the terms used for heat absorbed during change of states involved in above processes.

Section B

25. 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.

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

26. The mixture of sand and water when filtered gives.

- (a) pale brown solution
- (b) brown solution
- (c) transparent solution
- (d) grey solution

27. When a mixture of sulphur powder and iron filings is heated. **1** (a) iron filings starts melting (b) sulphur sublimates leaving iron filling behind (c) ferrous sulphide is formed. (d) sulphur melts

28. On adding an aqueous solution of sodium sulphate to an aqueous solution of barium chloride we immediately observe that : (a) A white precipitate is formed (b) A yellow precipitate is formed (c) A clear colourless solution is formed (d) No reaction takes place

29. When ice melts cooling is produced because of one of the following : (a) density of ice is less than water (b) Ice floats on water (c) Ice absorbs heat from the surroundings (d) melting point of

ice is 0degC

30.A student takes some water in a beaker and heats it over a flame for determining its boiling point. He would observe that the temperature of water : (a) keeps on increasing regularly (b) keeps on increasing irregularly (c) first increases then decreases (d) first increases gradually and then becomes constant

31.The order of steps used to separate the components of a mixture of Sand, camphor and common salt is : (a) moving a magnet, dissolving in water and sublimation. (b) dissolving in water, evaporation and sublimation. (c) sublimation, dissolving in water, filtration and evaporation. (d) dissolving in water, filtration, distillation and sublimation.

32.The final appearance of the solution formed when zinc metal is put into dilute sulphuric acid is : (a) Red (b) Pink (c) Black (d) Colourless

33.In the mixture of iron filings and sulphur powder **1** (a) only iron filings gets attracted towards magnet (b) only sulphur powder gets attracted towards magnet (c) both sulphur powder and iron filings gets attracted towards magnet (d) neither iron filling nor sulphur get attracted towards magnet.

34.Recovery of common salt from its solution in water can be done by : (a) evaporation (b) distillation (c) filtration (d) dissolving in more water

35.A student was asked to identify the process which occurs when the raisins are soaked in water : (a) Osmosis (b) Plasmolysis (c) Endocytosis (d) Diffusion

36.A teacher focused the slide given below under a compound microscope. Which of the following students identified it correctly ?

(a) Sheela identified it as cheek cells. (b) Madhu identified it as squamous epithelium. (c) Balaji identified it as parenchyma. (d) Shanti identified it as onion peel.

37.Metanil yellow, an adulterant used in arhar dal, is basically : (a) an acid used in toilet cleaner. (b) an inorganic dye used in leather, paper and textile industries. (c) a detergent used as washing powder. (d) yellow painted small stone pieces.

38.Meenu was trying to test the presence of starch in potato tuber. She forgot the reagent with which the starch gives blue colour. Help her to select the correct reagent from the following : (a) Safranin (b) Methylene blue (c) Iodine (d) Eosin

41.A student recorded the mass of dry raisins as 3g and the mass of raisins after soaking in water as 4.8g . While performing the above experiment. The percentage of water absorbed by raisin is : (a) 20% (b) 30% (c) 60% (d) 40%

SUMMATIVE ASSESSMENT –I (2011)
SCIENCE-SC1 QP 470017
Class – IX (Chemistry)

Time allowed: 1 hour

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- (vii) Questions 8 to 19 in section A are three marks questions. These are to be answered in about 50 words each.
- (viii) Questions 20 to 24 in section A are five marks questions. These are to be answered in about 70 words each.
- (ix) Questions 25 to 42 in section B are multiple choice questions based on practical skills. Each question is a one mark question. You are to select one most appropriate response out of the four provided to you.

Section A

- 1. With which name is the phenomenon of changing of a liquid into its vapours at temperature below its boiling point known ?
- 2. In a high jump athletic event the athletes are made to fall on a cushioned bed. Why ?
- 4. Explain Tyndall effect. Which type of solutions show Tyndall effect ?
- 8. What determine the state of a substance ? Suggest a method to liquefy gases. Water droplets are observed on the outer surface of a glass tumbler containing ice cold water. Give reason.
- 9. State the separation technique you would apply for the separation of the following ? **3** (a) Sodium chloride from its solution in water (b) Tea leaves from tea (c) Iron pins from sand (d) Different pigments from an extract of leaves (e) Butter from curd (f) Fine mud particles suspended in water.
- 20. (a) A solution is prepared by dissolving 15g of sodium chloride in 200g of H₂O. What is the

mass by mass percent age of NaCl in this solution ? (b) What is solute and solvent in aerated drinks ? (c) Given a solution of substance 'A' how will you test whether it is saturated or unsaturated with respect to 'A' at the given temperature

OR

(a) How much water should be mixed with 12mL of alcohol so as to obtain 12% alcohol solution ? (b) How does the particle size vary in a true solution and a suspension ? (c) What is a dispersed phase and a dispersing medium in a colloid ?

Section B

25. A true solution of sugar and water is prepared. A student observed that it is : (a)

Homogeneous (b) Transparent (c) Clear (d) All of the above

26. Four students were asked to add water to chalk powder, milk, sand and soil. They were asked in which sample there is no suspension when added to water ? (a) Chalk powder (b) Milk (c) Sand (d) Soil

27. To separate sulphur from Iron fillings, the solvent used is : (a) carbon di sulphide (b) chloroform (c) alcohol (d) water

28. The colour of the product obtained on burning of magnesium ribbon is. (a) white (b) black (c) blue (d) brown

29. Melting point of a substance is that constant temperature at which : (a) Melting of substance starts and it exists only in solid phase. (b) Melting of substance starts and it exists only in liquid phase. (c) Melting of substance completes and it exists only in liquid phase. (d) Melting of substance begins and both its solid and liquid phase exists together.

30. While determining the boiling point of liquid, the thermometer should be so fixed that : (a) Its bulb completely dips into liquid and is vertical. (b) Its bulb is completely above the liquid and is vertical. (c) Its bulb should touch the bottom of the container. (d) It should be placed slanting in the liquid.

31. The purpose of separating the components of a mixture is : (a) Separation makes it possible to study and use the individual components of a mixture. (b) It is helpful in removing any harmful or undesirable constituents. (c) It is helpful in obtaining a pure sample of a substance. (d) All of the above.

32. What is the colour of precipitate when sodium sulphate is added to a solution of barium chloride ? (a) Brown (b) Black (c) Blue (d) White

33. Meera heated a mixture of Iron fillings and sulphur powder. Which of the following

observations reported is correct : (a) mixture turns black (b) sulphur powder retains its appearance (c) iron can still be separated (d) there is no effect of heating

34.A mixture containing ammonium chloride, sodium chloride and sand is heated in a china dish to recover ammonium chloride from it. The inverted funnel is placed over china dish : (a) Before heating. (b) After heating. (c) When fumes of ammonium chloride stop coming. (d) When fumes of ammonium chloride start coming.

35.A student recorded the mass of dry raisins as 4.0g and the mass of raisins after soaking in water as 6.4g . While performing the above experiment. The percentage of water absorbed by raisin is : (a) 20% (b) 30% (c) 60% (d) 40%

36.While preparing a temporary mount of human cheek cells, the excess glycerine on the slide : (a) is left as it is. (b) is drained by tilting the slide. (c) is allowed to evaporate. (d) is drained by tilting the slide and then the slide is gently wiped using a filter paper.

37.When iodine solution is added to following four samples of food I, II, III, IV, the sample which turn blue black are (I) Boiled rice (II) Crushed potato (III) Boiled arhar dal (IV) Powdered arhar dal (a) I, II (b) I, II, III (c) I, II, IV (d) I, III, IV

38.When 2-4 drops of hydrochloric acid were added to the given sample of arhar dal, the pink colour developed in the dal is due to the presence of :

(a) Metanil yellow (b) Starch (c) Turmeric powder (d) Chalk powder

39.Geeta was asked to prepare a temporary mount of onion peel and list the steps. While writing, she wrote following steps which may not be in proper sequence : The correct sequence would be : (i) Add few drops of safranin stain and transfer to a slide. (ii) Cover it with a cover slip. (iii) Add a drop of glycerine. (iv) Take out onion peel. (v) Keep the peel in water in a petri

41.A student was asked to identify the process which occurs when the raisins are soaked in water :

(a) Osmosis (b) Plasmolysis (c) Endocytosis (d) Diffusion

SUMMATIVE ASSESSMENT –I (2011)
SCIENCE-SC1 QP 470019
Class – IX (Chemistry)

Time allowed: 1 hour

Maximum Marks: 30

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- (viii) Questions 20 to 24 in section A are five marks questions. These are to be answered in about 70 words each.
- (ix) Questions 25 to 42 in section B are multiple choice questions based on practical skills. Each question is a one mark question. You are to select one most appropriate response out of the four provided to you.

Section A

- 1. Why does the smell of hot cooked food reach you several metres away within second.
- 2. Apart from changing the magnitude of velocity of an object (or) changing the direction of motion of an object what other changes can force bring on an object ?
- 3. Name the process in which diffusion takes place through a selective permeable membrane. **1**
- 4. Define a solution. Give an example of (i) gas in liquid solution (ii) gas in gas solution
- 8.(i) Arrange the following substances in increasing order of force of attraction between the particles. (a) water (b) hydrogen (c) sand (ii) Why does the temperature remain constant at the melting point ? (iii) Which property of gases makes it possible to fill large volume of gases in small cylinders.
- 9.(a) Differentiate between chemical and physical change ? (b) Give one example of each.
- 20.(a) A solution contains 20g of common salt in 120g of water. Calculate the concentration in

terms of mass-by-mass percentage of the solution.

(b) Sudha tested the solubility of four salts A, B, C and D at different temperatures and collected the following data. (Solubility refers to the amount in grams dissolved in 100g of water to give a saturated solution.)

Answer the following questions from the table (i) Which salt has the highest and lowest solubility at 323K ?

(i) A student prepared a saturated solution of X at 323K and then added 25g water to it.

(ii) What mass of X must be added to again make the solution saturated ?

(iii) The solubility of which salt is least affected by increase in temperature ? (iv) What mass of 'T' would be required to make saturated solution in 200g of water at 290K ?

OR

(a) List any four properties of a colloid and mention any two properties in which colloids differ from suspension. (b) State what is Tyndall effect ? Which of the following solutions will show Tyndall effect ? Starch solution, sodium chloride solution, Tincture iodine, air

21. Compare in tabular form, the properties of Solids, Liquids and Gases with respect to :

(i) Shape (ii) Volume (iii) Compressibility

(iv) Diffusion (v) Fluidity or Rigidity

OR

(i) What is meant by evaporation of a liquid ? Water kept in an earthen pot becomes cool during summer. Why ? (ii) With the help of a labelled diagram, describe in brief an activity to show sublimation of ammonium chloride.

Section B

25. Four students took four beakers A, B, C, D half filled with water. They dissolved soil, chalk powder, sugar, fine sand in them and after observation found that -

(a) A, B, D are suspensions (b) B, C, D are suspensions (c) C, B, A are suspensions (d) A, C, D are suspensions

26. Three students Avani, Sudesh, Hari were given funnels, filter paper, test tubes, test tube stands, common salt, chalk powder, starch. They prepared the true solution, suspension, colloidal solutions. Test tubes were arranged as shown in the figure. They observed filtrate in the test tubes and residue on the filter paper and concluded.

(A) Filtrate is clear and residue is left (B) Filtrate is clear and no residue is left (C) Filtrate is

translucent and no residue is left Which of the following is correct ? (a) Both B and C are true solution (b) Both A and B are suspension (c) Only C is colloid (d) Neither A is colloid nor B is a true solution

27. Colour of compound of Iron and Sulphur is : (a) Black (b) Green (c) Yellow (d) None of the above

28. The colour of Sulphur powder and CuSO_4 crystals respectively is : (a) blue and yellow (b) both yellow (c) yellow and blue (d) both blue

29. When a thermometer is kept in the ice the reading shows that (a) temperature keeps increasing (b) temperature keeps decreasing (c) temperature increases first and then decreases. (d) temperature first decreases and then remains constant at 0°C .

30. For the determination of boiling point of water, a student takes water in a boiling tube **1** and heats it over the flame of a burner. While recording the temperature over a regular interval of time the student would observe that the temperature of water (a) first increases for some time then starts decreasing with passages of time. (b) keeps on increasing continuously. (c) first increases gradually then becomes constant. (d) keeps on changing in an irregular fashion.

31. The sequence commonly followed for separating a mixture of sand, common salt and ammonium chloride is : (A) use of magnet, dissolving in water, filtration, sublimation (B) dissolving in water, filtration, evaporation, sublimation (C) sublimation, use of magnet, dissolving in water, filtration (D) sublimation, dissolving in water, filtration, evaporation

32. When you add carbon-di-sulphide in a test-tube containing a mixture of iron filings and sulphur powder, then what do you observe after shaking the test-tube well. (a) Sulphur dissolves to form colourless solution and iron filings settles down (b) Some brown gas is evolved (c) Yellow solution is formed and iron filings settles down (d) After sometime, carbon-di-sulphide, sulphur and iron filings form three separate layers in the test tube.

33. A student heats solid copper sulphate in a dry test tube and reports the following observations. The observation which is correctly noticed is : (a) It breaks with crackling sound (b) A reddish brown gas is evolved (c) Water droplets collect in the cooler parts of the test tube (d) A dark blue residue is formed

34. Separation of sand from ammonium chloride depends on the physical property of : (a) density (b) Volatility (c) Specific gravity (d) melting point

35. A student recorded the mass of dry raisins as 2.0 g and the mass of raisins after soaking as

3.5 g. The percentage of water absorbed by raisin is – (a) 20 % (b) 10 % (c) 75 % (d) 40 %

36.On examining the onion peel which statement is not found correct ? (a) Intercellular space is absent. (b) Intracellular space is present. (c) Vacuole is present. (d) Nucleus is present.

37.Vipin was opening a bottle of tincture iodine. Some iodine fell on his yellow cotton shirt and also on the white table cloth. The stain on the table cloth was yellow brown while that on his shirt was blue-black. The most plausible reason for this is that : (a) shirt was dyed with metanil yellow (b) shirt was starched after washing (c) Table cloth was starched but not the shirt (d) shirt had some residual soap on it

38.Samples of arhar dal were taken in four test tubes with some water in each and labeled P, Q, R & S. A few drops of the following were added to the test tubes; distilled water to P, HCl to Q, NaOH to R and alcohol to S. We would be able to confirm adulteration of the dal with metanil yellow in test tube : (a) P (b) Q (c) R (d) S

41.A student soaked 10 g raisins in 75 mL of distilled water in two beakers A and B. He maintained beaker A at 20°C and beaker B at 40°C. After an hour, the percentage of water absorbed will be : (a) Same in beaker A and B (b) more in A than in B (c) more in B than in A (d) twice as much in B as in A

42.Raisins swell up after being placed them in a beaker containing water for sometime because. (a) Water inside the raisins exits when placed in a beaker of water. (b) The concentration of water in the cell sap is the same as that of water in the beaker. (c) The concentration of water in the cell sap is higher than the water in the beaker. (d) The concentration of water in the cell sap is lesser than that of water in the beaker.

SUMMATIVE ASSESSMENT –I (2011)
SCIENCE-SC1 QP 470022
Class – IX (Chemistry)

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Section A

1. Why does the level of water not change when common salt is dissolved in water ?
2. An unbalanced force is acting on an object. List the possible effects that will be caused in the motion of object.
3. State the full form of ATP. ATP
4. What mass of water must be added to 5 g of NaCl to make 5% mass by mass percentage of the solution. 5% 5 g NaCl
8. Solubility of potassium nitrate at 313 K is 62 g. What mass of potassium nitrate would be needed to produce a saturated solution of KNO₃ in 50 g of water at 313 K ? What is the effect of change of temperature on the solubility of a salt ?
9. How will you separate common salt, sulphur powder and sand from their mixture ?
- 20.(a) A solution contains 50 mL of alcohol mixed with 150 mL of water. Calculate the

concentration of this solution. (b) Write any two characteristics of colloidal solution.

OR

(a) Write the steps involved in the process of obtaining pure copper sulphate from an impure sample. (b) Give any one application of this method. (c) Why is this technique better than simple evaporation to purify solids ?

21.(a) What is matter ? (b) "The rate of diffusion of liquids is higher than that of solids." Why ?
(c) Write two properties of gases and two properties of solids. (d) Write the full form of : (i) LPG
(ii) CNG

OR

Define boiling point of a liquid. At what temperature in the Kelvin scale does water boil ?
Explain what happens when we supply heat energy to water till it changes its state. What is this heat energy called ?

Section B

25. Which of the following does not form suspension when added to water ? (a) soil (b) chalk powder (c) milk (d) fine sand

26. Which of the following is most stable ? (a) True solution (b) Colloidal solution (c) Suspension
(d) None of these

27. Which is **not** the property of a mixture ? (a) It is a heterogeneous system.
(b) It is a system of constant composition. (c) It is a system of variable composition. (d) Its components can be separated by physical methods.

28. The colour of the solution obtained, when iron nails are kept immersed in copper sulphate solution is : (a) dark blue (b) dark green (c) brown (d) greenish blue

29. A thermometer has 20 equal divisions between 90°C and 100°C marks. A student while determining the boiling point of water finds that the mercury thread becomes stationary at the 19th mark above 90°C. He should record the boiling point of water as : (a) 90.19°C (b) 99.5°C (c) 109°C (d) 119°C

30. What is the state of water at 100°C ? (a) Solid (b) Vapour (c) Liquid (d) Liquid and Vapour
100°C

31. A mixture of Ammonium Chloride and sand was heated, ammonium chloride changes directly into vapour due to : (a) evaporation (b) Fusion (c) distillation (d) Sublimation

32. While heating iron filings and sulphur, keep your eyes away from vapours because : (a) sulphur vapours may cause irritation in eyes. (b) sulphur vapours are harmless. (c) iron vapours

may cause irritation in eyes. (d) H_2S gas may cause irritation in eyes.

33. A student took about 10 mL of dil. H_2SO_4 in a conical flask and added a few pieces of clean zinc metal. He observed small bubbles of a colourless and odourless gas coming out of the flask. On bringing a candle flame at the mouth of the flask, he observed that the candle flame goes off and the gas in the flask burns with a pop sound. This gas is : (a) O_2 (b) H_2S (c) SO_2 (d) H_2

34. A student heated a mixture of sand and a chemical substance in a beaker. The mixture started giving dense white fumes which condensed on a cool glass plate to form white powdery mass. This process (of separating constituents of mixture) is called :

(a) Evaporation (b) Decantation (c) Sublimation (d) Distillation

37. A student added only two drops of iodine to a rice extract in test tube „A“ . Another student added a little rice extract to iodine solution in test tube „B“ . They would then observe : (a) a change of colour to blue black in test tube „A“ but not in test tube „B“ (b) a change of colour to blue black in test tube „B“ but not in test tube „A“ (c) a change of colour to blue black in test tube „A“ and „B“ both (d) No change of colour in any test tube

38. To observe starch granules in potato under a microscope, freshly cut surface of potato was pressed on a slide. The stain that will show starch granules clearly is : (a) methylene blue (b) iodine (c) safranin (d) eosin