



CHEMISTRY

BOOKS - VGS PUBLICATION-BRILLIANT

SEPARATION OF SUBSTANCES

Exercise

1. Is it possible to separate sugar mixed with wheat flour ? If yes, how will you do it ? If

powdered sugar is mixed with wheat flour,
how do you separate them ?



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2. Why is hand picking necessary after winnowing?



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3. Srikar accidentally mixed mustard seeds with rice and salt. How can he separate them?



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4. Which separation process is used when one component is in a mixture :Heavier than the other ?



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5. Which separation process is used when one component is in a mixture Bigger than the other ?



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6. Which separation process is used when one component is in a mixture Different shape and colour from the other ?



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7. Which separation process is used when one component is in a mixture One is soluble in water and the other is not ?



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8. Which separation process is used when one component is in a mixture One floats and the other sinks in water?



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9. Visit a nearby dairy and report about the processes used to separate cream from milk.



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10. Divya suggested some methods to separate mixtures given below. Are they correct? Find whether they are possible or not. Give reasons. Pure water can be obtained from sea water by the process of filtration.



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11. Divya suggested some methods to separate mixtures given below. Are they correct? Find whether they are possible or not. Give reasons.

Cheese can be removed from curdled milk by decantation.



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12. Cheese is removed from curdled milk by the process of decantation.



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13. Divya suggested some methods to separate mixtures given below. Are they correct? Find

whether they are possible or not. Give reasons.

Separation of sugar from tea can be done by filtration.



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14. Separation of sugar from tea can be done by filtration.



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15. Collect information from your parents regarding various methods used by us to clean food grains at home and prepare a chart to show them.



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16. We observe that kerosene rises up in the wick of a lantern. Take a wick and put a spot of ink at one of its ends. Then dip the wick in kerosene just as you had dipped the chalk in

water in the chromatography activity. Will your experiment be successful in separating the colour ink spot. Try it.



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17. Write some mixtures you know mentioning their components. Write also if they are natural or man made.



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18. You might come across some situations where you have to separate some components from a mixture. Write down two examples of such situations. What do you do to separate the components?



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19. Are you able to separate each component from the mixture?



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20. Are the methods used to separate the components the same in all instances?



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21. What are the properties of the components that are used, in separating them from mixture ?



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22. The stones are separated from pulses and rice by



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23. Give some examples for hand picking method of separation.



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24. Separate the grain from dust



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25. When can Winnowing be used ?



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26. What property helps in separating husk from grains?



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27. Where do we use the chromatography method ?



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28. How will you separate the tea-leaves from tea ?, Which property helped in separation of tea - leaves from tea ?



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29. 1. Collect some solid materials such as ghee, wax, sand, sugar, salt, haldi, dal, plastic, wood, iron nails. Take a bucketful of water and a beaker. Now try to discover the following :Which materials float on water



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30. Collect some solid materials such as ghee, wax, sand, sugar, salt, haldi, dal, plastic, wood, iron nails. Take a bucketful of water and a

beaker. Now try to discover the following

Which materials sink in water ?



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31. Collect some solid materials such as ghee, wax, sand, sugar, salt, haladi, dal, plastic, wood, iron nails. Take a bucketful of water and a beaker. Now try to discover the following

Which materials are soluble in water ?



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32. Collect some solid materials such as ghee, wax, sand, sugar, salt, haldi, dal, plastic, wood, iron nails. Take a bucketful of water and a beaker. Now try to discover the following

Which materials are not soluble in water?



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33. How do you separate mud and sand from muddy water ? What is sedimentation and decantation?



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34. Explain the process of Crystallization.



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35. How do you prepare distilled water?

Explain the process of distilling water.



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36. a) What is sublimation ? b) How do you demonstrate the sublimation of camphor?



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37. what Is chromatography ?What are its uses?



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38. How do you separate colour from a mixture of colours?



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39. Draw a diagram of using filter paper to filter water.



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40. Laxmi says that sedimentation and decantation are used at home while cleaning rice and pulses for cooking. Describe the sediments in this process.



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41. We use sieves to separate tea-leaves from tea and sand from gravel. What are the differences between the sieves used in the two instances?





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42. With what liquid do doctors mix injection powder before administering injections to patients?



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43. What is a mixture ? Give examples.



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44. Identify the mixtures among the following:

Jangree, coffee, sand, haldi, red chilli.



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45. Sand in water , salt water , oil in water , stones in grains , mixture of colours .From which mixture in the examples mentioned above, are you able to separate components?



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46. How do farmers separate grains which are bigger in size from the smaller ones? What do they do with them ?



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47. What is a Filter paper made of ? For what purpose is it useful?



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48. Can you separate mud from muddy water using a sieve?



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49. Is water clean after the mud water is sieved with filter paper?



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50. Can you filter mud water using a filter paper ?



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51. After using the filter paper to filter water what do you find ? What do you see left behind on the paper ? What is obtained in the beaker?



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52. Are you able to separate the salt from the salt water with a filter paper ?



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53. Why could you not filter the salt from salt water?



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54. How is salt manufactured ?





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55. Solid form of carbondioxide is

- A. Ice
- B. Dry ice
- C. Wet ice
- D. Gas

Answer:



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56. In the Middle Ages, salt is referred to as

A. Platinum

B. Gold

C. White gold

D. Silver

Answer:



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57. A solid directly changing into vapour

A. Solidification

B. Cooling

C. Sublimation

D. Crystallization

Answer:



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58. A substance obtained by mixing two or more pure substances

A. filtrate

B. residue

C. mixture

D. component

Answer:



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59. A clear liquid obtained after filtration

A. filtrate

B. residue

C. mixture

D. component

Answer:



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60. A method for removing the husk from grain

A. hand picking

B. winnowing

C. sedimentation

D. decantation

Answer:



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61. Removing insoluble impurities from muddy water by allowing it to settle

A. Sublimation

B. Filtration

C. Winnowing

D. Decantation

Answer:



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62. From salt water, salt can be obtained by

A. crystallization

B. distillation

C. sublimation

D. decantation

Answer:



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63. Doctors mix injection powder with

A. water

B. saline

C. distilled water

D. mineral water

Answer:



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64. Among the following pure water is

A. sea water

B. river water

C. pond water

D. distilled water

Answer:



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65. Among the following this dissolves in water

A. saw dust

B. haldi

C. iron nails

D. sand

Answer:



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66. For separating larger and smaller substances in a mixture we use

- A. distillation
- B. decantation
- C. sedimentation
- D. sieving

Answer:



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67. An insoluble substance in a liquid can be separated by

A. hand picking

B. sieving

C. sedimentation

D. chromatography

Answer:



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68. If a mixture has light and heavy substances
we use

A. hand picking

B. winnowing

C. decantation

D. filtration

Answer:



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69. This is free from impurities

A. distilled water

B. sea water

C. well water

D. river water

Answer:



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70. Salt and camphor mixture can be separated by

A. filtration

B. distillation

C. sublimation

D. sedimentation

Answer:



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71. Tea leaves are separated from tea by

A. sieve

B. strainer

C. sedimentation

D. none

Answer:



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72. The mud particles which settle down at the bottom of a gas are called

A. filtrate

B. mud

C. sediment

D. sieve

Answer:



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73. What property helps in separating husk from grains?

- A. winnowing
- B. hand picking
- C. sieving
- D. filtration

Answer:



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74. The stones are separated from pulses and rice by

A. sieving

B. winnowing

C. filtration

D. hand picking

Answer:



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75. A mixture of camphor and NaCl can be separated by

A. sublimation

B. evaporation

C. filtration

D. sedimentation

Answer:



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76. The compounds of solution are separated by

- A. decantation
- B. filtration
- C. evaporation
- D. sedimentation

Answer:



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77. The process used for separating grains from stalk is called

A. sieving

B. decanting

C. winnowing

D. threshing

Answer:



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78. Pebbles and stones are removed from sand
by

A. sieving

B. winnowing

C. decanting

D. threshing

Answer:



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79. Transferring the clear liquid into another container using a glass rod is called

- A. filtration
- B. decantation
- C. condensation
- D. sedimentation

Answer:



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80. Hand picking method is effective in

- A. solid mixture
- B. liquid mixture
- C. gaseous mixture
- D. none of these

Answer:



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81. Which of the following method used to separate two miscible liquids?

A. sieving

B. winnowing

C. separating funnel

D. Distillation

Answer:



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82. The process of setting down of particles of a solid in a liquid is known as

A. precipitation

B. decantation

C. sublimation

D. sedimentation

Answer:



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83. Air is a.....

A. compound

B. mixture

C. pure substance

D. none of these

Answer:



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84. The solubility of water _____ with an increase in temperature.

A. increases

B. decreases

C. remains same

D. sometime increases and sometimes decreases

Answer:



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85. "Combine" is used in which of the following?

A. winnowing

B. sieving

C. filtration

D. threshing

Answer:



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86. The spinner in washing machine dries clothes works on the principle of

- A. filtration
- B. centrifugation
- C. sedimentation
- D. evaporation

Answer:



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87. The method of separating substances based on size, colour and shape is called

- A. sieving
- B. hand picking
- C. threshing
- D. none of these

Answer:



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88. Sand from water is separated by

A. condensation

B. filtration

C. sedimentation & decantation

D. sublimation

Answer:



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89. How is cream separated from milk commercially?

A. filtration

B. sedimentation.

C. churning

D. decantation

Answer:



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90. Tea leaves are separated from tea by

A. sieve

B. sedimentation.

C. strainer

D. none

Answer:



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91. When few plants are infected _____ is an excellent method of controlling pests.

A. filtration

B. sieving

C. winnowing

D. hand picking

Answer:



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92. An example for sublimation is

A. camphor

B. water

C. salt

D. sugar

Answer:



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93. India's largest salt water lake is

A. Pulicot

B. Chilka

C. Kolleru

D. All of the above

Answer:



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94. A clear liquid obtained after filtration

A. mixture

B. residue

C. filtrate

D. component

Answer:



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95. Distilled water is produced by _____ method.

A. sublimation

B. crystallisation

C. filtration

D. solidification

Answer:



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96. _____ separated single colour to mixing colour.

A. Sublimation

B. Chromotography

C. Winnowing

D. Filtrate

Answer:



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97. What is the method useful to separate two components of a mixture having different particle size ?

A. Filtering

B. Sieving

C. Chromatography

D. Crystallization

Answer:



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98. Winnowing is based on which property of component of a mixture?

- A. Difference in size
- B. Difference in weight
- C. Difference in shape
- D. Difference in colour

Answer:



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99. Which process is used for separation of husk and chaff from rice?

A. Winnowing

B. Sedimentation

C. Sieving

D. Both (A) and (B)

Answer:



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100. Assertion (A) : The process of settling of heavier insoluble particles from a suspension of a substance in water known as decantation.

Reason (R) : This process along with sedimentation is used to get clear water from muddy water.

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

Answer:





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101. Assertion (A) : A saturated solution is that solution which can dissolve any more of solute only on heating. Reason (R) : If a saturated solution is cooled some of the solute can be seen at the bottom of the container.

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

Answer:



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102. Statement (i) : If the solid dissolve in liquid, then decantation process can be used to separate them. Statement (ii) : Oil and

water solution can be separated by decantation.

A. Statement (i) is correct while statement (ii) is incorrect.

B. Statement (ii) is correct while statement (i) is Incorrect.

C. Both statements are correct.

D. Both statements are incorrect

Answer:



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103. Statement (i) : A solution that is capable of dissolving more of solute at the given temperature is known as saturated solution.

Statement (ii) : A saturated solution on heating becomes unsaturated solution.

A. Statement (i) is correct while statement (ii) is incorrect.

B. Statement (ii) is correct while statement (i) is incorrect.

C. Both statements are correct.

D. Both statements are incorrect

Answer:



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104. Sohan observed water droplets on the outside of a glass of cold water. The water droplets come from

A. the water vapour in the air

B. the cold glass surface

C. the ice cube

D. none of these

Answer:



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