

**Separation of Substance**

1. Butter is separated from milk by
- (a) sedimentation                      (b) filtration  
(c) churning                              (d) decantation

Answer: (c)

Solution: Butter is separated by churning.

2. Filtration is a method to separate the components of a
- (a) solution                              (b) mixture of a liquid and an insoluble substance  
(c) both (a) and (b)                      (d) pure substance

Answer: (b)

Solution: Components of solution cannot be separated by this method.

3. Threshing is done by
- (a) beating                      (b) bullocks                      (c) machines                      (d) all of these

Answer: (d)

4. Which method is used to separate pebbles and stones from sand?
- (a) Handpicking                      (b) Winnowing                      (c) Sieving                      (d) Any of these

Answer: (c)

Solution: Handpicking will require more time while winnowing is not fit at all.

5. The components of a solution (say sugar in water) can be separated by
- (a) filtration                              (b) evaporation  
(c) sedimentation                      (d) decantation

Answer: (b)

6. Sand from water is separated by

- (a) sieving
- (b) evaporation
- (c) filtration
- (d) sedimentation and decantation

Answer: (d)

Solution: It can be done by evaporation and filtration also but sedimentation and decantation are easier ways.

7. The process of conversion of water vapours into liquid is called

- (a) condensation
- (b) decantation
- (c) sedimentation
- (d) evaporation

Answer: (a) condensation

Solution: Water vapours changing into liquid is called condensation.

8. The process of conversion of water into its vapours is called

- (a) evaporation
- (b) condensation
- (c) guttation
- (d) transpiration

Answer: (a)

Solution: The conversion of water into vapours is called evaporation.

9. A mixture of ammonium chloride and sand is separated by

- (a) evaporation
- (b) decantation
- (c) sublimation
- (d) filtration

Answer: (c)

Solution: Ammonium chloride is separated by sublimation process.

10. The property which forms the basis of sieving

- (a) difference in weight
- (b) difference in colour
- (c) difference in shape
- (d) difference in size

Answer: (d)

Solution: Sieving method is used for separating solid constituents of a mixture which differ in their size.

11. A mixture of iodine and sand can be separated by:

- (a) Decantation
- (b) Centrifugation
- (c) Filtration
- (d) Sublimation

Answer : (d)

Solution : A mixture of iodine and sand can be separated by sublimating.

12. A mixture of tea leaves and iron filling can be separated by:

- (a) Filtration
- (b) Evaporation
- (c) Separating funnel
- (d) Magnet

Answer : (d)

Solution : A mixture of tea leaves and iron fillings can be separated by magnet.

13. A mixture of mustard oil and kerosene oil can be separated by:

- (a) Sublimation
- (b) Evaporation
- (c) Separating funnel
- (d) Filtration

Answer : (c)

Solution : A mixture of mustard oil and kerosene oil can be separated by separating funnel.

14. Insects are separated from wheat by:

- (a) Hand picking
- (b) Sieving
- (c) Magnet
- (d) None of these

Answer : (a)

Solution : Insects from wheat are separated by hand picking.

15. Larger quantity of salt can be dissolved in water by:

- (a) Heating
- (b) Coaling
- (c) Icing
- (d) None of these

Answer : (a)

Solution : Larger quantity of salt can be dissolved in water by heating.

16. \_\_\_\_\_.. cannot dissolve any amount of substances:

- (a) Solid                      (b) Water                      (c) Gas                      (d) Vapour

Answer : (b)

Solution : Water cannot dissolve any amount of substances.

17. To separate husk from grains in a field by

- (a) Tailor                      (b) Grocer                      (c) Watchman                      (d) Farmers

Answer : (d)

Solution : Husk separated from grains by farmers.

18. the husk which is \_\_\_\_\_., is carried away by the wind and forms a Separate heap at a short distance from the heap of grain,

- (a) Heavier                      (b) Lighter                      (c) Stronger                      (d) None of these

Answer : (b)

Solution : The husk is lighter is carried away by wind and forms a separate heap at a short distance from the heap of grain.

19. The grains which are fall vertically down on the ground,

- (a) Heavier                      (b) Lighter                      (c) Stronger                      (d) None of these

Answer : (a)

Solution : The grains which are heavier fall vertically down on the ground.

20. A method of separation used when the components of a mixture are of different sizes is known as:

- (a) Separation                      (b) Winnowing                      (c) Sieving                      (d) None of these

Answer : (c)

Solution : A method of separation used when the components of a mixture are of different sizes is known as sieving.

21. water is cleared by the process of loading.

- (a) Lemon water                      (b) Milky water  
(c) Muddy water                  (d) None of these

Answer : (c)

**Solution :** Muddy water is cleaned by the process of loading.

22. The method to separating seeds of paddy from its stalks is called:

- (a) Filtration (b) Hand-picking (c) Decantation (d) Threshing

Answer : (d)

**Solution :** Seeds of paddy from its stalks is separating by thrushing.

23. Common salt is then obtained from this mixture of salts by:

- (a) Evaporation                      (b) Filtration                      (c) Purification                      (d) None of these

Answer : (c)

**Solution :** Common salt is then obtained from this mixture of salts by purification.

24. Which types of filters are used to purify drinking water ?

- (a) Electric water filters                      (b) Common water filter  
(c) Pure it filter                                (d) None of these

Answer : (a)

**Solution :** Electric water filters are used to purify drinking water.

25. Give an example of where filtration is used at home.

- (a) Mustard oil and water can be separated by using filtration  
(b) Husk from rice is separated by filtration  
(c) Paneer from milk is separated by filtration  
(d) All of these

Answer : (c)

**Solution :** Paneer from milk is separated by filtration.

26. \_\_\_\_\_. is used in loading as it quickly dissolves in water.

- (a) Tea leaves                      (b) Spirit                      (c) Alum                      (d) None of these

Answer : (c)

Solution : Alum is used in loading as it quickly dissolves in water.

27. Give examples of substances used in daily life.

- (a) Sugar                      (b) Common salt                      (c) Wheat                      (d) All of these

Answer : (d)

Solution : All of these (sugar, wheat, common salt) substances used in daily life.

28. Give an example of materials that require separation.

- (a) We filter the tea leaves before drinking  
(b) Obtain harmful components  
(c) Mixed impurities for getting a pure sample  
(d) Both (a) and (c)

Answer : (a)

Solution : After preparing tea, it is passed through a strainer to separate the tea leaves.

29. Some times, threshing is done with the help of \_\_\_\_\_. cart.

- (a) goat                      (b) bullock                      (c) cow                      (d) camel

Answer : (b)

Solution : Sometimes, threshing is done with the help of bullockcart.

30. \_\_\_\_\_. are also used to thresh large quantities of grain.

- (a) Cart                      (b) By beating                      (c) Machines                      (d) None of these

Answer : (c)

Solution : Machine are also used to thresh large quantities.

31. Money substances contain only one type of constituent particles are called:

- (a) Mixture
- (b) Pure substances
- (c) Winnowing
- (d) None of these

Answer : (b)

Solution : Many substances contain only one type of constituent particles are called pure substances.

32. A substance which consists two or more types of constituents which are present in any amount or any ratio is called:

- (a) Mixture
- (b) Pure substances
- (c) Winnowing
- (d) None of these

Answer : (a)

Solution : A substance consists more types of constituents which are present in any amount or ratio is mixture.

33. The process by which the undesirable components forming the mixture are removed to get a desirable component is called:

- (a) Mixture
- (b) Separation
- (c) Loading
- (d) Filtration

Answer : (b)

Solution : The undesirable components forming the mixture are removed to get a desirable components is called separation.

33. A separation method which involves blowing of light particles by air is known as:

- (a) Winnowing
- (b) Decantation
- (c) Filtration
- (d) None of these

Answer : (a)

Solution : A separation method which involves blowing of light particles by air is known as winnowing.

34. The process of setting down of heavier insoluble particles from a mixture is called:

- (a) Filtration
- (b) Separation
- (c) Evaporation
- (d) Sedimentation

Answer : (d)

Solution : Setting down of heavier insoluble particles from a mixture is called sedimentation.

35. The process of transferring clear liquid without disturbing sedimentation is known as:
- (a) Sublimation                      (b) Loading                      (c) Decantation                      (d) None of these

Answer : (c)

Solution : Transferring clear liquid without disturbing sediments is known as decantation.

36. The process in which insoluble small suspended particles in a solution are made heavier to increase the rate of sedimentation of particles is called:
- (a) Crystallization                      (b) Loading                      (c) Saturated                      (d) None of these

Answer : (b)

Solution : The process in which insoluble small suspended particles in a solution are made heavier to increase the rate of sedimentation of particles is called loading.

37. The method of separation in which particles suspended in a liquid are rotated in a centrifuge machine and heavier particles settle down is called:
- (a) Centrifugation                      (b) Crystallization  
(c) Saturated                      (d) None of these

Answer : (a)

Solution : The particles suspended in a liquid are rotated in a centrifuge machine and heavier particles settle down is centrifugation.

38. The process of separation insoluble solid from a liquid by passing the liquid through a filter paper is known as:
- (a) Evaporation                      (b) Filtration  
(c) Separation                      (d) None of these

Answer : (b)

Solution : The process of separating insoluble solid from a liquid by passing the liquid through a filter paper is known as filtration.

39. The process of separating any salt from its solution by removing water is called:
- (a) Separation                      (b) Filtration                      (c) Evaporation                      (d) None of these

Answer : (c)

Solution : Separating any salt from its solution by removing water is called evaporation.



40. The process in which a solid changes directly to gas without changing into liquid is known as:

- (a) Evaporation                      (b) Solid                      (c) Gas                      (d) Sublimation

Answer : (d)

Solution : A solid changes directly to gas without changing into liquid is sublimation.

41. The process of separating a pure substance in the form of crystals from its hot saturated solution by cooling is called:

- (a) Crystallization                      (b) Filtration  
(c) Distillation                      (d) Evaporation

Answer : (a)

Solution : Separating a pure substance in the form of crystals from its hot saturated solution by cooling is called crystallization.

42. The process of heating a liquid to form vapour and then cooling the vapour to get back the liquid is called:

- (a) Crystallization                      (b) Saturated  
(c) Distillation                      (d) None of these

Answer : (c)

Solution : Heating a liquid to form vapour and then cooling the vapour to get back the liquid is called distillation.

43. A solution is said to be saturated if it cannot dissolve more of substance in it by:

- (a) Crystallization                      (b) Saturated solution  
(c) Distillation                      (d) None of these

Answer : (b)

Solution : A solution is said to be saturated if it cannot dissolve more of substances in it by distillation.

44. Which of the following processes is used to remove stones from wheat?

- A) Threshing                      B) Winnowing                      C) Hand picking                      D) None of these

Answer : C

45. Which method will be used to remove tea leaves from brew?
- A) Hand picking      B) Filtration      C) Threshing      D) Any of these

Answer : B

46. Which method is used to separate heavier and lighter components in a mixture by wind?
- A) Hand picking      B) Threshing      C) Winnowing      D) Sieving

Answer : C

47. The process that we use to separate grain from stalks is\_\_\_\_\_
- A) hand picking      B) threshing      C) winnowing      D) None of these

Answer : B

48. The machine used for carrying out the process of threshing is called
- A) strainer      B) ladle      C) thresher      D) None of these

Answer : C

49. In winnowing the components of a mixture are separated by
- A) blowing air      B) water      C) Both the above      D) None of the above

Answer : A

50. Winnowing is the commonly used method to separate lighter husk particles from heavier seeds of grains. When farmers use this method the heap near the platform for winnowing will be of

A) husk      B) seeds of grain  
C) mixture of husk particles and seeds of grains      D) can't predict

Answer : B

51. Which of the following is commonly used to separate bran present in flour?
- A) Hand picking      B) Winnowing  
C) Sieving      D) Any of these

Answer : C

52. Which one is used to separate a mixture of oil and water?
- A) Sieving                      B) Decantation                      C) Filtration                      D) Evaporation

Answer : B

53. Which method would you use to separate soil from muddy water (i.e. soil suspended in water)
- A) Sedimentation                      B) Decantation
- C) Evaporation                      D) Both sedimentation and decantation

Answer : C

54. Which of the following is not used in filtration?
- A) Filter paper                      B) Filter funnel                      C) Thresher                      D) None of these

Answer : C

55. Which process is used to remove pulp from juice before drinking?
- A) Hand picking                      B) Sedimentation
- C) Decantation                      D) Filtration

Answer : D

56. To get paneer, we add lemon drops to boiling milk. We can see solid paneer particles being formed. paneer is then separated by using
- A) strainer                      B) alum                      C) stirrer                      D) None of these

Answer : A

57. Which method would you use to separate the components of salt solution.
- A) Decantation                      B) Filtration                      C) Evaporation                      D) Sublimation

Answer : C

58. Which process is used for separation of cream from milk
- A) Filtration                      B) Threshing                      C) Hand-picking                      D) Churning

Answer : D

59. Salt is obtained from sea water by which process?
- A) Evaporation      B) Filtration      C) Decantation      D) Condensation

Answer : A

60. If boiled milk is allowed to cool for sometime and is then poured on a piece of cloth, we find that cream (malai) is left behind on cloth. This process of separating cream from milk is
- A) nitration      B) decantation      C) sedimentation      D) churning

Answer : A

61. Generally the dirt particles are separated from pulses before cooking. For this the pulse is generally washed with water. Allowed to stand for some time and then the water is removed. It is an example of which process?
- A) Condensation      B) Filtration      C) Threshing      D) Decantation

Answer : C

62. If muddy water taken from a pond is allowed to stand undisturbed for some time we find that the dirt particles present in muddy water get settled at the bottom of container. This process will be called
- A) sedimentation      B) decantation      C) nitration      D) evaporation

Answer : A

63. Saturated solution is
- A) a solution which can dissolve more of a solute at a given temperature
- B) a solution which cannot dissolve more of solute at a given temperature
- C) a solution which can dissolve solute at a lower temperature
- D) None of these

Answer : B

64. A covered glass jar containing a wet piece of cotton is placed in sunlight for an hour. Tiny droplets of water are noticed sticking to the upper inner surface of glass jar. This is due to
- A) evaporation      B) condensation      C) transpiration      D) both (a) and (b)

Answer : D

65. A process in which the impure sample is first heated in order to vapourise the liquid and then these vapours of liquid are made to cool to give pure liquid. The complete process is called

- A) condensation      B) distillation      C) sublimation      D) None of these

Answer : B

66. Which of the following process can be considered as reverse of condensation?

- A) Evaporation      B) Vaporization      C) Boiling      D) None of these

Answer : A

67. Find the odd one out

- A) Plugging      B) Hand picking      C) Winnowing      D) Threshing

Answer : A

68. Choose correct alternative to complete the given analogy. Muddy water: sedimentation: Butter from milk:

- A) Filtration      B) Churning      C) Sublimation      D) Evaporation

Answer : B

69. Which method is used to get pure solvent from a solution?

- A) Distillation      B) Centrifugation      C) Filtration      D) Using alum crystals

Answer : A

70. Why alum is used to purify muddy water?

- A) Mud gets dissolved due to alum  
B) Mud floats due to alum  
C) Mud settles down due to alum  
D) Alum kills germs from muddy water

Answer : C

71. Which method will you use to obtain pure alum from its solution?

- A) Evaporation                      B) Filtration                      C) Sublimation                      D) Distillation

Answer : A

72. Decantation refers to

- A) the process of mechanically transferring a clear liquid without disturbing the settled solid particles.  
B) the process of allowing the solid particles to settle at the bottom.  
C) a combination of both the above  
D) None of these

Answer : A

73. The process of condensation is one in which

- A) the vapours of water are allowed to cool and change into liquid water  
B) the vapours of a liquid are allowed to cool and change into liquid state  
C) the vapours of a substance are changed directly to solid state  
D) liquid is heated to get its vapours.

Answer : B

74. Which property is used in separating a mixture of two solids by winnowing?

- A) Difference in odour    B) Difference in weight  
C) Difference in size    D) Difference in colour

Answer : B

75. Which of the following statements is false?

- A) Tea can be separated from the leaves by filtration.  
B) A mixture of salt and sand can be separated by distillation.  
C) Winnowing will separate wheat grains from husk and dust.  
D) A mixture of sand and salt is partially soluble in water.

Answer : B

76. You can use decantation to separate :

- A) two miscible liquids                      B) two immiscible liquids  
C) two metals in an alloy                      D) solid-solid mixture

Answer : B

77. Which of the following is not a separation technique?

- A) Churning                      B) Loading                      C) Stirring                      D) Sieving

Answer : C

78. Sedimentation process can be speeded up by loading. Which of the following is used in loading?

- A) Common salt                      B) Oxygen                      C) Alum                      D) Sugar

Answer : C

79. In a saturated sugar solution more sugar can be dissolved by \_\_\_\_\_.

- A) cooling                      B) stirring                      C) heating                      D) None of these

Answer : C

80. On keeping ice pieces in glass tumbler, lots of water droplets are observed on the surface of the tumbler. This is due to \_\_\_\_\_.

- A) Evaporation                      B) Sedimentation                      C) Decantation                      D) Condensation

Answer : D

81. Which method is used in coffee machines to separate ground coffee from the coffee solution?

- A) Evaporation                      B) Condensation                      C) Filtration                      D) Distillation

Answer : C

82. A student has been assigned with the task to separate the oil from water. He would go for which of the following separation process?

- A) Filtration                      B) Distillation                      C) Decantation                      D) Condensation

Answer : C

83. Evaporation means going from a liquid to a
- A) liquid                      B) solid                      C) gas                      D) None of these

Answer : C

84. Which of the following given natural process is an example of condensation process?
- A) Formation of rainbow                      B) Formation of clouds
- C) Blue colour of sea                      D) Formation of salt from sea water

Answer : B

85. If Ram pours the water off after boiling the potatoes, what is this an example of?
- A) Evaporation                      B) Handpicking                      C) Threshing                      D) Decantation

Answer : D

86. Which of the following mixtures could not be separated into its components by decanting?
- A) Beans in hot water                      B) Sand in water
- C) Oil in water                      D) Coffee in hot water

Answer : D

87. Which of the following process is not an example of evaporation process?
- A) Drying of clothes
- B) Formation of salt from sea water
- C) Formation of small droplets at the surface of a bottle containing ice cold water.
- D) drying of wet hairs

Answer : C



DIRECTIONS: Match Column-I with Column-II and select the correct answer using the codes given below the columns.

**Column-I**

**Column-II**

- |  |                 |
|--|-----------------|
| A. The process of removal of larger particles from smaller ones.         | (p) Decantation |
| B. The process of separation of butter from milk                         | (q) Filtration  |
| C. The process of separation of components of a muddy water              | (r) Churning    |
| D. The process of separation of components of a mixture of oil and water | (s) Sieving     |

A)  $A \rightarrow (p), B \rightarrow (q), C \rightarrow (r), D \rightarrow (s)$

B)  $A \rightarrow (s), B \rightarrow (r), C \rightarrow (q), D \rightarrow (p)$

C)  $A \rightarrow (r), B \rightarrow (s), C \rightarrow (p), D \rightarrow (s)$

D)  $A \rightarrow (q), B \rightarrow (s), C \rightarrow (p), D \rightarrow (r)$

Answer : B

DIRECTIONS: Match Column-I with Column-II and select the correct answer using the codes given below the columns.

Column-I	Column-II
A. The process involved when a heavier component in a mixture settles after water is added to it	(p) Condensation
B. The process whereby the liquid layer above the settled heavier	(q) Evaporation
C. The process in which the liquids get converted to gases component is removed (vapours) on heating.	(r) Sedimentation
D. The process in which gases(vapours) get converted to liquids on cooling	(s) Decantation

A) A→(r),B→(s),C→(q),D→(p)

B) A→(q),B→(r),C→(p),D→(q)

C) A→(p),B→(q),C→(r),D→(s)

D) A→(s),B→(r),C→(q),D→(p)

Answer : A

90. DIRECTIONS: Read the passage (s) given below and answer the questions that follow. Passage - 1 You are provided with a thoroughly grinded mixture consisting of dry sand and powdered dry leaves. You are asked to separate the components of this mixture either by using the process of winnowing or by any other process. Which other process would you use to separate the components of this mixture?

- A) Threshing                      B) Hand picking                      C) Filtration                      D) None of these

Answer : D

91. DIRECTIONS: Read the passage (s) given below and answer the questions that follow. Passage - 1 You are provided with a thoroughly grinded mixture consisting of dry sand and powdered dry leaves. You are asked to separate the components of this mixture either by using the process of winnowing or by any other process. 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 : B

92. DIRECTIONS: Read the passage (s) given below and answer the questions that follow. Passage - 1 You are provided with a thoroughly grinded mixture consisting of dry sand and powdered dry leaves. You are asked to separate the components of this mixture either by using the process of winnowing or by any other process. Which component of the mixture will fall near the platform used for winnowing?

- A) Sand                      B) Dried leaves                      C) Both of these                      D) None of these

Answer : A

93. DIRECTIONS: Read the passage (s) given below and answer the questions that follow. Passage - 2 You are asked to add two spoons of solid salt to some liquid water taken in a beaker. On stirring it you find that whole of the salt has disappeared and only liquid can be seen in beaker. After stirring the salt completely disappears and you can see only liquid in the beaker. The liquid in beaker is

- A) water                      B) solution                      C) solute                      D) solvent

Answer : B

94. DIRECTIONS: Read the passage (s) given below and answer the questions that follow. Passage - 2 You are asked to add two spoons of solid salt to some liquid water taken in a beaker. On stirring it you find that whole of the salt has disappeared and only liquid can be seen in beaker. Which of the following processes will be useful to get salt from this solution?

A) Condensation

B) Evaporation

C) Filtration

D) Sedimentation

Answer : B

95. DIRECTIONS: Read the passage (s) given below and answer the questions that follow. Passage - 2 You are asked to add two spoons of solid salt to some liquid water taken in a beaker. On stirring it you find that whole of the salt has disappeared and only liquid can be seen in beaker. Which process can you use to get liquid water from the water vapours if you collect them in another container?

A) Sedimentation

B) Condensation

C) Evaporation

D) Filtration

Answer : B

96. DIRECTIONS: The questions in this segment consists of two statements, one labelled as "Assertion and the other labelled as "Reason R ". You are to examine these two statements carefully and decide if he Assertion A and Reason R are individually true and if so, whether the reason is a correct explanation if the assertion. Select one of the current options, and given below in each questions. 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 : C

97. DIRECTIONS: The questions in this segment consists of two statements, one labelled as "Assertion and the other labelled as "Reason R ". You are to examine these two statements carefully and decide if he Assertion A and Reason R are individually true and if so, whether the reason is a correct explanation if the assertion. Select one of the current options, and given below in each questions. Assertion A: The process of conversion of liquid water to its vapours by

heating the liquids called evaporation. Reason R: The process of conversion of water vapours to liquid by cooling the vapours is called condensation.

- 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 : B

98. Directions: Read the following two statements carefully and choose the correct option. (i) A mixture of sand and salt is partly soluble in water. (ii) The process of threshing is used to separate grains from stalks.

- 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 : C

99. The apparatus shown in picture below is used in the process of filtration. Name of this apparatus is



- A) separating funnel
- B) conical flask
- C) filter funnel
- D) stirrer

Answer : C

100. The diagram shows which process of separation?



A) Sedimentation

B) Decantation

C) Filtration

D) Distillation

Answer : B