

Separation of Substances

<1M>

1.The process used to separate two immiscible liquids is -

(A) Sedimentation. (B) Evaporation. (C) Distillation.(D) Decantation process.

2.The process of winnowing is based on the principle

(I) Lighter husk particles are carried away by the wind.

(II) Heavy grains fall down in a heap.

(III) Husk and wheat are evincible.

(IV) Wheat grains are blown away by the wind.

Which of above sentences is/are correct?

(A) I only (B) I and IV (C) I and II (D) II and III

3.The paper used in the process of filtration to separate a mixture of sand and water is

(A) Butter paper (B) Plain paper (C) Tissue paper (D) Filter paper

4.The process of conversion of water vapour into its liquid form on cooling is known as -

(A) Evaporation. (B) Condensation. (C) Distillation. (D) Decantation.

5.The method of handpicking is useful when

(I) The impurities are large in quantity. (II)The impurities are large in size.

(III)The impurities are less in quantity. (IV)The impurities are smaller in size.

(A) I and II are correct. (B) II and IV are correct.

(C) II and III are correct. (D) All are correct.

6.Name the method of separation to obtain clear water from muddy water?

7.The process of .....is used in the manufacture of salt from sea water.

(A) Condensation (B) Filtration (C) Evaporation (D) Sedimentation

8.The separation of the constituents of a mixture is done to -

(A) Remove harmful and unwanted constituents. (B) Obtain pure sample of a substance.

(C) Obtain useful constituents. (D) All are correct.

9.What do you understand by a mixture?

10.Name two materials used as filters.

11.Which property of the constituents of a mixture is used in winnowing.

12.Define Filtration.

13.A mixture of rice and stone particles is separated by

(A) Hand picking (B) Sieving (C) Winnowing (D) Churning

14.The method of sieving is used to separate

- (A) Components of same size.                      (B) Components of different size.  
(C) Soluble impurities.                              (D) Liquid impurities.

15. The process of drying the wheat stalks in the sun and then beating them to separate the grains is called

- (A) Winnowing                                      (B) Threshing                              (C) Churning      (D) Sieving

16. Which of the following mixtures use filtration as method of separating components?

- (i) Salt in water                                      (ii) Tea with tea leaves  
(iii) Chalk powder in water      (iv) Fruit juice with its pulp  
(A) (i), (ii) & (iii)                      (B) (ii) & (iii)      (C) (ii), (iii) & (iv)                      (D) (i) only

17. Dust particles when mixed with water settle down at the bottom of the container because

- (A) They react with water.                                      (B) They are miscible in water.  
(C) They become heavier when water is poured on them.      (D) None of the above.

18. Match the following and choose the answer from the code given below.

- |                                   |                |
|-----------------------------------|----------------|
| (A) Separates stones from sand    | (i) Filtration |
| (B) Separates wheat from husk     | (ii) Winnowing |
| (C) Separates tea leaves from tea | (iii) Churning |
| (D) Separates butter from curd    | (iv) Sieving   |

- (A) A- (ii), B-(iii), C-(i), D-(iv)                      (B) A- (ii), B-(iv), C-(i), D-(iii)  
(C) A- (iii), B-(iv), C-(ii), D-(i)                      (D) A- (iv), B-(i), C-(ii), D-(iii)

19. When water changes into vapours, the process is called

- (A) Condensation      (B) Heating      (C) Cooling      (D) Evaporation

20. A mixture of salt and water can be separated by this process

- (A) Evaporation                      (B) Filtration      (C) Sedimentation                      (D) Handpicking

21. When a mixture of sugar in water cannot dissolve more of sugar at room temperature, the solution is called

- (A) Saturated solution                                      (B) Unsaturated solution  
(C) Super saturated solution                                      (D) None of the above

22. Condensation is a process when

- (A) Aliquid changes into its vapours.                                      (B) The vapours change into liquid.  
(C) Ice melts to form water.                                      (D) Water freezes to form ice.

23. When muddy water is left undisturbed

- (i) The mud settles down.  
(ii) Some mud particles remain floating in water.  
(iii) The water can be decanted and separated.  
(iv) The process of filtration can be used to separate mud particles completely.

Which of the above is correct?

(A) (iii) & (iv)            (B) (i) Only            (C) (i) & (iv)            (D) All the above

24. The process used to separate grains from stalk is

(A) Threshing            (B) Winnowing            (C) Handpicking            (D) Sieving

25. When a glass containing muddy water is left undisturbed and the mud is allowed to settle down, this method is called

(A) Decantation            (B) Filtration            (C) Sedimentation            (D) Evaporation

26. When salt water in a beaker is boiled, the water..... and ..... is left behind

(A) Boils, sand            (B) Evaporates, salt            (C) Evaporates, sand            (D) Vaporizes, nothing

27. The strainer to strain tea from tea leaves acts as a

(A) Filter            (B) Condenser            (C) Boiler            (D) Churner

28. We need to separate the components of a mixture because

- (i) Mixtures are useless.
- (ii) Non useful components need to be separated from useful ones.
- (iii) Impurities and harmful substances need to be removed.
- (iv) The components are different and invisible.

(A) (i) only            (B) (ii) & (iii)            (C) (iii) & (iv)            (D) (iv) only

29. Match the items of column 'A' with the items of column 'B':

Column A	Column B
I. Pulp from fruit juice	(a) Threshing
II. Sieving	(b) Churning
III. Butter from milk	(c) Husk from wheat
IV. Grains from stalks	(d) filtration

(A) I - b, II - d, III - a, IV - c            (B) I - a, II - c, III - b, IV - d  
(C) I - b, II - d, III - c, IV - a            (D) I - d, II - c, III - b, IV - a

30. A \_\_\_\_\_ is used for separating insoluble solid particles from a liquid.

(A) Piece of muslin cloth.            (B) Filter paper.  
(C) Both (1) and (2).            (D) None of these.

31. Salt is obtained from the salt water by the process of-

(A) Magnetic separation.            (B) Decantation.            (C) Evaporation.            (D) None of these.

32. The property which forms the basis of sieving is -

(A) Difference in weight.            (B) Difference in size.  
(C) Difference in shape.            (D) Difference in colour.

33. Decantation is used for -

(A) Separating two miscible liquids having different boiling points.  
(B) Separating two immiscible liquids.

(C) Both (A) and (B).

(D) None of these.

34. A mixture of sand and dried leaves can be separated by -

(A) Magnetic separation. (B) Hand picking. (C) Winnowing. (D) Sieving.

35. Process used to separate mud from water is-

(A) Evaporation. (B) Decantation. (C) Sedimentation. (D) Both (2) and (3).

36. The process of conversion of a liquid into its vapours is called-

(A) Evaporation. (B) Filtration. (C) Sublimation. (D) Condensation.

37. Find the odd one out -

(A) Chalk powder. (B) Sand. (C) Mud. (D) Sugar.

38. A solid substance is dissolved in water. Which of the following method is used for separating it?

(A) Evaporation. (B) Decantation. (C) Filtration. (D) Sedimentation.

39. The process of settling down of particles of a solid in a liquid is -

(A) Sublimation. (B) Sedimentation. (C) Decantation. (D) Filtration.

40. Various substances present in a mixture are called-

(A) Elements. (B) Compounds. (C) Atoms. (D) Components.

41. A mixture of corn and husk is separated by -

(A) Handpicking. (B) Winnowing. (C) Sieving. (D) Filtration.

42. What is decantation?

43. What is evaporation?

44. What is condensation?

45. Why do we need to separate different substances present in a mixture ?

46. Is it a good practice to sieve flour before consuming it ?

47. Why hand picking method is not used in godowns to remove dirt, stone or husk from the grains of wheat and rice?

48. Which principle is used for separating a mixture of two immiscible liquids.

49. Identify the mixtures from the following : Pickle, Chutney, Jam, Sugar, Water, Common salt.

<2M>

50. Name the method of separation, which is used to obtain salt from seawater. Define that method.

51. What is a saturated solution? How can you dissolve more substance in it?

52. What is sedimentation? Give example.

53. How will you separate sand and water from their mixture?

54. How will you separate husk or dirt particles from pulses before cooking ?

55. You are given a mixture of sand and water. How will you separate it ?

56. How will you make the muddy water clear ?

<3M>

57. Why do we need to separate different components of a mixture? Give an example

58. What is sieving? Where is it used?

59. How do we separate salt and sand from their mixture?

60. Explain the process of filtration. Give at least two examples where it is used in our daily life

61. How is salt obtained from sea water?

<5M>

62. What is winnowing? Explain. Where is it used?

63. When do we use the following ?

- a) Threshing                      b) hand picking                      c) filtration                      d) sieving
- e) sedimentation and decantation

64. Is it possible to separate salt from a solution of salt in water ? If yes, how will you do it ?

65. What is the need for separation of substances?

66. How common salt is obtained from sea water?

67. What is winnowing? Where is it used?