

## **CHEMISTRY**

# **NCERT - NCERT CHEMISTRY(TELUGU)**

## **SEPARATION OF SUBSTANCES**

Exercise

**1.** Give some examples for hand picking method of separation.



**2.** Where do we use the chromatography method?



**Watch Video Solution** 

3. Salt water is



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



Watch Video Solution

5. Draw the diagram of filtration.



**6.** Rusting of iron is physical change or chemical change



**Watch Video Solution** 

**7.** How do you prepare distilled water? Explain the process of distilling water.



**8.** How do you prepare distilled water? Explain the process of distilling water.



**Watch Video Solution** 

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



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



**Watch Video Solution** 

11. Can you filter mud water using a filter paper 7



**Watch Video Solution** 

**12.** An example for sublimation is

**13.** How do you prepare distilled water? Explain the process of distilling water.



**14.** How do you use the method of chromatography to find out what different colours are present in a coloured chalk?



**15.** The stones are separated from pulses and rice by

A. winnowing

B. hand picking

C. sieving

D. sedimentation

### **Answer:**



40				•		
16.	Cor	ncr	ete	IS	а	_

A. single substance

B. mineral

C. mixture

D. element

#### **Answer:**



## 17. Which is soluble in water:

- A. Chalk powder
- B. face powder
- C. table salt
- D. turmeric

### **Answer:**



18. Tea leaves are sep	parated from tea by
------------------------	---------------------

- A. filter paper
- B. conical flask
- C. funnel
- D. strainer



19. \_\_\_ is a sieve made up of paper.

A. carbon paper

B. graph paper

C. filter paper

D. litmus paper

### **Answer:**



<b>20.</b> Which	ch method	l is suitable	to separate	: salt
from sea	a water?			

- A. crystallization
- B. decantation
- C. sedimentation
- D. winnowing



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

- A. Alcohol
- B. distilled water
- C. bromine
- D. chlorine water

### **Answer:**



**22.** The substance(s) which undergo sublimation is/are

- A. common salt
- B. camphor
- C. wax
- D. sugar

### **Answer:**



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

- A. Photography
- B. Cordiography
- C. Cinematography
- D. Chromatography

### **Answer:**



24. Petrochemicals are obtained by the fractional distillation of 'petroleum.Different compounds are formed at different temperatures. The first product obtained from petroleum is kerosene Asphalt is the residue'formed in fractional distillation. We also can get petrol, diesel, etc. from petroleum. Name the first compound formed from petroleum.

A. Sedimentation

B. Filtration

- C. Distillation
- D. Sublimation



- **25.** Distilled water is produced by \_\_\_\_\_ method.
  - A. Metabolic processes
  - B. Chemical processes

- C. Nuclear processes
- D. Digestion processes



**Watch Video Solution** 

**26.** The process used to separate paddy grains from husk is \_\_\_\_\_.

- A. hand picking
- B. winnowing

- C. sieving
- D. distillation



**Watch Video Solution** 

**27.** The rain water directly from sky is mostly filtered by -

- A. atmosphere
- B. oxygen

C. clouds

D. soil layers

## **Answer:**



**Watch Video Solution** 

**28.** When a solid changes to directly gaseous state, the process is called

A. solubility

B. sublimation

- C. decantation
- D. evaporation



- **29.** Sand from water is separated by
  - A. sedimentation
  - B. decantation
  - C. sublimation

D. A & B

### **Answer:**



**Watch Video Solution** 

# **30.** The purest sample of water, is \_\_\_\_

- A. Rain water
- B. Distilled water
- C. River water
- D. Underground water



# **Watch Video Solution**

**31.** Which of the following compounds undergoes sublimation?

- A. Camphor
- B. Iodine
- C. Tinker's salt
- D. All of these



## **Watch Video Solution**

**32.** An insoluble substance in a liquid can be separated by

- A. Decantation
- B. Distillation
- C. Evaporation
- D. Sublimation



# **Watch Video Solution**

**33.** \_\_\_\_ is used for separation of dissolved substanace from a liquid.

- A. Filteration
- B. Distillation
- C. Evaporation,
- D. Sedimentaton



## **Watch Video Solution**

**34.** \_\_\_ is the process used to remove insoluble impurities from a liquid.

- A. Evaporation
- B. Distillation
- C. Filteration
- D. Sublimation



## **Watch Video Solution**

**35.** 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?

- A. Winnowing
- B. Hand picking
- C. Decantation

D. Filteration

### **Answer:**



**Watch Video Solution** 

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

A. Winnowing

B. Hand picking.

- C. Evaporation
- D. Sublimation



**Watch Video Solution** 

# **37.** Cream from milk can be separated by

- A. Distillation
- B. Evaporation
- C. Centrifugation

D. Filteration

## **Answer:**



**Watch Video Solution** 

**38.** A mixture of saw dust and iron dust can be separated by the process of -

- A. winnowing
- B. Hand picking
- C. using a magnet

D. filteration

## **Answer:**



**Watch Video Solution** 

**39.** If one of the components is soluble in water and the other is not, we use the process \_\_\_ to separate them.

A. Distillation

B. Filtration

- C. Sublimation
- D. Evaporation



- **40.** Separation of sugar from chalk dust can be done by the method of -
  - A. Winnowing
  - B. Decantation

- C. Filtration
- D. Evaporation



- **41.** A clear liquid obtained after filtration
  - A. Filtrate
  - B. Filter
  - C. Precipitate

D. Sediment

## **Answer:**



**Watch Video Solution** 

**42.** A substance obtained by mixing two or more pure substances

A. compound

B. Element

C. mixture

D. molecule

### **Answer:**



**Watch Video Solution** 

**43.** The machine used to separate the massive particles and light particles from a mixture is

- A. Winnowing
- B. Hand picking
- C. Filtration

D. Evaporation

### **Answer:**



**Watch Video Solution** 

**44.** The reverse process of 'evaporation' is -

A. Filteration

**B.** Decantation

C. Boiling

D. Condensation



- **45.** How do you separate the mixture of napthalene powder and salt powder?
  - A. Decantation and then evaporation
  - B. Evaporation and then decantation
  - C. Evaporation and condensation
  - D. Sieving and winnowing



# **Watch Video Solution**

**46.** Sieving is used when components of mixture have -

A. same particle size

B. different particle sizes

C. same or different particle sizes

D. None



# **Watch Video Solution**

**47.** The principle in the process of sedimentation is -

- A. Gravity
- **B.** Attraction
- C. Repulsion
- D. Condensation



# **Watch Video Solution**

**48.** The components of Indian Ink can be idenfied using this technique -

- A. Filteration
- B. Chromatography
- C. Evaporation
- D. Decantation



# **Watch Video Solution**

**49.** What property helps in separating husk from grains?

- A. Sieving
- B. Threshing
- C. Winnowing
- D. Hand picking



# **Watch Video Solution**

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

- A. Salt water
- B. Distilleld water
- C. Sea water
- D. Sugar water



# **Watch Video Solution**

**51.** Which method is suitable to separate salt from sea water?

- A. Filtration
- B. Crystallisation
- C. Sedimentation
- D. Sieving



**Watch Video Solution** 

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

- A. Sediments
- B. Mud
- C. leaves
- D. Grass



**Watch Video Solution** 

**53.** Why is hand picking necessary after winnowing?



**Watch Video Solution** 

**54.** Salt water is



**55.** 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.



**Watch Video Solution** 

**56.** 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.



**Watch Video Solution** 

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



Watch Video Solution

**58.** Draw the diagram of getting distilled water in your house on a small scale



**59.** Why doctors use distilled water for injections? Give reasons.



**60.** How water can be used in eparation of different substances? Explain with example.



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



**Watch Video Solution** 

**62.** Appreciate your mother's hard work in hand picking.



**63.** Observe and exclain the beauty of nature and the water sources in it.



**Watch Video Solution** 

**64.** Why mother sieves flour before cooking roti? Give reasons.



**Watch Video Solution** 

65. Tea leaves are separated from tea by

A.	sieve

B. cloth

C. stainer

D. none

### **Answer:**



**Watch Video Solution** 

**66.** The stones are separated from pulses and rice by

B. sinnowing	
C. filtratin	
D. hand picking	
Answer:	
Watch Video Solution	
Watch Video Solution	
Watch Video Solution	
Watch Video Solution  67. What is winnowing ?	

A. sieve

- B. husk
- C. rice
- D. sand



**Watch Video Solution** 

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

A. sediments

- B. mud
- C. leaves
- D. grass



**Watch Video Solution** 

**69.** Sea water is used for preparation of salt by

the process.....

A. crystallization

B. sedimentation

C. filtration

D. evaporation

### **Answer:**



**Watch Video Solution** 

# Example

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?



**Watch Video Solution** 

2. Why is hand picking necessary after winnowing?



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



**Watch Video Solution** 

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



**Watch Video Solution** 

**5.** Which separation process is used when one component is in a mixture Different shape and

colour from the other?



**Watch Video Solution** 

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



**Watch Video Solution** 

**7.** Which separation process is used when one component is in a mixture One floats and the

other sinks in water? **Watch Video Solution** 8. Which method is suitable to separate salt from sea water? **Watch Video Solution** 9. What is a Filter paper made of ? For what purpose is it useful? **Watch Video Solution** 

**10.** Why water droplets are formed on the lid of the rice bowl after cooking? Give reasons.



**Watch Video Solution** 

**11.** Do you think new compounds are formed by mixtures ? Give your views.



**12.** Why doctors use distilled water for injections? Give reasons.



**Watch Video Solution** 

**13.** When camphor is kept in plate after some time it vanished? Ramesh observed this and he asked his mother about. What questions he may have asked?



**14.** If you have given a mixture of sand, saw dust and salt mixed with water. What methods do you prefer to separate them?



**Watch Video Solution** 

**15.** An ink drop is split on the table. How can you remove it in absorption process?



**16.** Why tea leaves are thrown after boiling them? Think and write.



**Watch Video Solution** 

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



18. 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.



19. What is osmosis? Explain with example.



**20.** The principle in the process of sedimentation is -



Watch Video Solution

**21.** Can you filter mud water using a filter paper?



**22.** How do you prepare distilled water? Explain the process of distilling water.



**Watch Video Solution** 

**23.** Draw a labelled diagram showing experimental setup required for sublimation of camphor?



**24.** How do you use the method of chromatography to find out what different colours are present in a coloured chalk?



**Watch Video Solution** 

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



**26.** Define mixtures. Write the components of given mixtures. Tea, laddu, lemon juice, concrete, soil.



**Watch Video Solution** 

27. Write the components of given mixtures and mention whether they are natural or man - made. Lemonade, jangree, coffee, sand,haldi, sambar powder, drainage water, honey.



**28.** List out different methods of separation of mixtures. Give one example for each method.



**Watch Video Solution** 

**29.** If you have given a mixture of sand, saw dust and salt mixed with water. What methods do you prefer to separate them?



**30.** Draw a picture of article used for separation of mixture in your house.



**Watch Video Solution** 

**31.** What is the method carried in the given figure ?

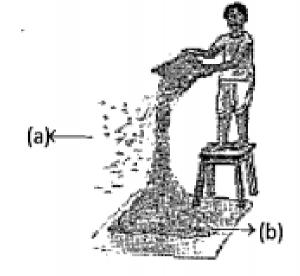


A. 1. Handpicking

- B. 2. winnowing
- C. 3. thrashing
- D. 4. sorting

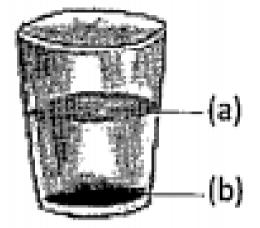


- **32.** What is the process carried in given figure
- ? Name the marked parts.



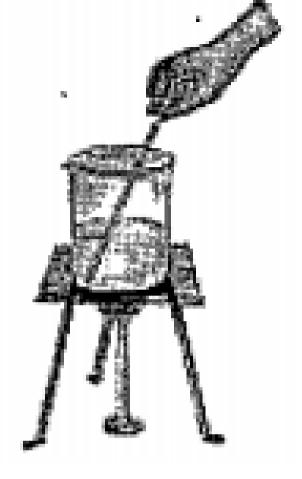


**33.** Observe the figre and name the marked parts. What is the process called?



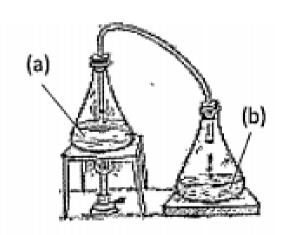


34. What is the method of separationh shown in the figure Write two lines about it.



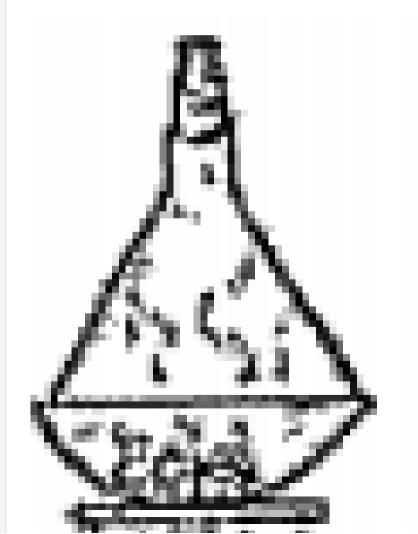


**35.** Name the marked parts in the figure. What is the mehtod used in the figure ? What is the use of it ?





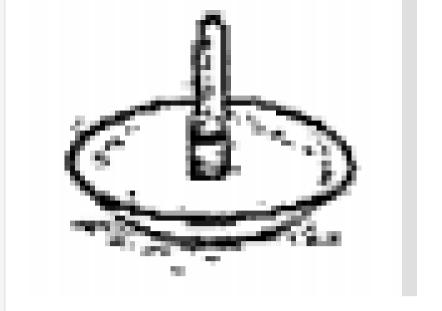
**36.** What is the substance that is heated in the china dish? What is the process that the compound undergoes? Write two lines about it.







**37.** What is the method used in the figure? When it is used?





**38.** Kiran observed his father separatin husk and grains by winnowing method in the field and apreciate how wind flow helping in separation.



**39.** Appreciate your mother's hard work in hand picking.



**40.** what is the percentage of sources of water on earth ?



**41.** Show by an experiment, the process of sublimation.



**Watch Video Solution** 

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



**43.** 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.



**Watch Video Solution** 

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



**45.** Separation of sugar from tea can be done by filtration.



**Watch Video Solution** 

**46.** Write different examples of sieving in everyday life.



**47.** Why mother sieves flour before cooking roti? Give reasons.



**Watch Video Solution** 

## Improve Your Learning

**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?

**2.** Why is hand picking necessary after winnowing?



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



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



**Watch Video Solution** 

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



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



**Watch Video Solution** 

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



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



**Watch Video Solution** 

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



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.



**Watch Video Solution** 

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



**12.** Separation of sugar from tea can be done by filtration.



**Watch Video Solution** 

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



14. 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.



**15.** Draw a neat diagram of the process of separation of a mixture of Ammonium Chloride and common salt.



**Watch Video Solution** 

**16.** Now a days it is thought that oxidation is simply decrease in electron density and reduction is increase in electron density.

How would you justify this?



**17.** 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?



**Watch Video Solution** 

**18.** Why is hand picking necessary after winnowing?



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



**Watch Video Solution** 

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



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



**Watch Video Solution** 

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



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



**Watch Video Solution** 

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



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



**Watch Video Solution** 

26. 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.



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



**Watch Video Solution** 

**28.** Separation of sugar from tea can be done by filtration.



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



**Watch Video Solution** 

**30.** 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.



Watch Video Solution

**31.** Draw a neat diagram of the process of separation of a mixture of Ammonium Chloride and common salt.



**32.** Now a days it is thought that oxidation is simply decrease in electron density and reduction is increase in electron density.

How would you justify this?

