

CHAPTER 9

METHODS OF SEPARATION IN EVERYDAY LIFE

VEDA
ACADEMY

CLASS 6TH

NCERT EXERCISE AND SOLUTIONS - SCIENCE



P1



P2

Q. 1. What purpose does handpicking serve in the process of separation?

- (i) Filtration
- (ii) Sorting
- (iii) Evaporation
- (iv) Decantation

ANSWER:-

- (ii) Sorting

Q. 2. Which of the following substances are commonly separated using the churning method?

- (i) Oil from water
- (ii) Sand from water
- (iii) Cream from milk
- (iv) Oxygen from air

ANSWER:-

- (iii) Cream from milk

Q. 3. Which factor is usually essential for the filtration?

- (i) Apparatus size
- (ii) Presence of air
- (iii) Pore size
- (iv) Temperature of the mixture

ANSWER:-

- (iii) Pore size

<https://t.me/veda6to8>



+91 98103 37915

1



Q. 4. State with reason(s) whether the following statements are True [T] or False [F]. Also, correct the False statement(s).

- (i) Salt can be separated from salt solution by keeping it under the Sun. []
- (ii) Handpicking should be used only when the quantity of one component is less. []
- (iii) A mixture of puffed rice and rice grains can be separated by threshing. []
- (iv) A mixture of mustard oil and lemon water can be separated by decantation. []
- (v) Sieving is used to separate a mixture of rice flour and water. []

ANSWER:-

- (i) Salt can be separated from salt solution by keeping it under the Sun. [T]
- (ii) Handpicking should be used only when the quantity of one component is less. [T]
- (iii) A mixture of puffed rice and rice grains can be separated by threshing. [F]
Corrected Statement: A mixture of puffed rice and rice grains can be separated by winnowing.
- (iv) A mixture of mustard oil and lemon water can be separated by decantation. [T]
- (v) Sieving is used to separate a mixture of rice flour and water. [F]
Corrected Statement: Sieving is used to separate a mixture of different sized solid particles, not for separating solid from liquid.

Q. 5. Match the mixtures in Column I with their methods of separation in Column II.

Column I	Column II
(i) Gram flour mixed with black gram	(a) Handpicking
(ii) Chalk powder mixed with water	(b) Magnetic separation
(iii) Corn mixed with potatoes	(c) Decantation
(iv) Iron powder mixed with sawdust	(d) Sieving
(v) Oil mixed with water	(e) Filtration

ANSWER:-

Column I	Column II
(i) Gram flour mixed with black gram	(d) Sieving
(ii) Chalk powder mixed with water	(e) Filtration
(iii) Corn mixed with potatoes	(a) Handpicking
(iv) Iron powder mixed with sawdust	(b) Magnetic separation
(v) Oil mixed with water	(c) Decantation

Q. 6. In what situations would you use decantation instead of filtration to separate solids from liquids?

ANSWER:-

Decantation is useful when heavy solid particles settle at the bottom, allowing the clear liquid to be poured off. **Example:** Separating sand from water.



Q. 7. Can you relate the presence of nasal hair to any separation process?

ANSWER:-

Nasal hair acts as a natural filter, trapping dust and pollutants from the air, similar to how filtration removes solid impurities from a liquid.

Q. 8. During the COVID-19 pandemic, all of us wore masks. Generally, what material are they made of? What is the role of these masks?

ANSWER:-

Masks, made of materials like cotton, polypropylene, or polyester, act as filters by trapping harmful particles, similar to how filtration removes impurities from liquids.

Q. 9. A mixture containing potatoes, salt and sawdust has been given to you. Outline a stepwise procedure for separating each component from this mixture.

ANSWER:-

Step 1: Handpick the potatoes out of the mixture.

Step 2: Add water to the remaining mixture to dissolve the salt.

Step 3: Filter the mixture to separate the sawdust from the salt solution.

Step 4: Evaporate the water from the salt solution to obtain the salt.

Q. 10. Read the following story titled 'Intelligent Leela' and tick the most appropriate options. Provide a suitable title of your choice for the paragraph.

Leela was working in the farm with her father when she realised that they left their drinking water at home. Before her father felt thirsty/hungry, she went to the nearby pond to fetch some water/grains. After obtaining some water in the container, she noticed that the water was muddy and fit/unfit for drinking. To purify the water, she kept it for some time and then she filtered/churned the muddy water using a piece of paper/muslin cloth. Leela, then, cooled/boiled the water for about 10 minutes in a covered pan. After cooling/boiling, she filtered/churned it again and made it fit/unfit for drinking. She served this water to her father while having food, who blessed her and appreciated her efforts.

ANSWER:-

Suitable title: Leela's Clever Water Purification

