Revision Exercise on Separation of Mixtures

Form One

RSE007

Instructions:

- Answer all questions in the spaces provided.
- Estimated time 40minutes.

SECTION A: Multiple Choice Questions and Matching Items

1. (i) The components of ink can be separated by

A. distillation. B. chromatography. C. filtration. D. sublimation.

ii. Which one of the following mixtures can be separated by sublimation?

A. A mixture of ammonium chloride and magnesium chloride. B. A mixture of sodium chloride and sodium sulphate. C. A mixture of calcium chloride and calcium carbonate. D. A mixture of magnesium chloride and iron filling.

iii. The separation of substances that make up ink by chromatography depends on the A. solubilities of the substances in the solvent. B. size of the chromatography paper. C. freezing points of the substances. D. boiling point of the solution of ink.

v. Which one of the following substances does not sublime when heated?

A. Ammonium chloride. B. Iron (III) chloride. C. Iodine. D. Copper (II) oxide.

i	ii	iii	iv	v

2.(a)Match the mixtures in List A with the corresponding methods of separation in List B by writing the letter of the correct answer below the item number in the table provided.

List A	List B
i) Ammonium chloride crystals in sand (ii) Muddy water	A Decantation B Chromatography

(iii) Oil in sunflower (iv) Sodium chloride in water (v) Spirit in water	C Evaporation D Fractional distillation E Layer separation F Sublimation G Solvent extraction

(FTNA, 2021)

List A	i	ii	iii	iv	v
List B					

2(b). Match each item in **List A** with a correct response in **List B** by writing its letter below the number of the corresponding item in the table provided.

List A	List B
(i) A process of separating a mixture of sodium chloride and ammonium chloride. (ii) A method used to separate oil and water. (iii) A method by which coloured substances is separated and identified. (iv) A method by which salt and water can be separated. (v) A method used to get the solvent from the solution mixture.	A Evaporation B Filtration C Boiling D Chromatography E Distillation F Layer separation G Decantation H Sublimation

(FTNA 2017)

List A					
List B					

2(c)Match each item in **List A** with a correct response in **List B** by writing its letter below the number of the corresponding item in the table provided.

List A	List B

(i) Method of recovery of both solute and solvent from a liquid. (ii) Method of separating two miscible liquids which their boiling points are close together. (iii) Method of separating two immiscible liquids. (iv) Method of separating two solids by heating in a way that one changes its state directly to gas. (v) Method of separating colored components using a moving solvent on materials that absorb such solvent. (vi) A suitable method of separating edible oils from seeds. (vii) Method of separating solid mixture contains iron. (viii) Method of separating an insoluble solid from a liquid. (ix) Method of separating a soluble solid and a solvent. (x) Method of separating liquids which forms a suspension with a solvent.	A Layer separation B Chromatography C Simple distillation D Condensation E Hand picking F Fractional distillation G Sieving H Solvent extraction I Evaporation J Sublimation K Magnetisation L Magnetism M Deposition N Decantation O Filtration

(FTNA 2014)

List A	i	ii	iii	iv	v	vi	vii	viii	ix	x
List B										

2(d). Match the mixtures in List A with the corresponding methods of separation in List B by writing the letter of the correct answer below the item number in the table provided.

List A	List B
(i) Chlorophyll from leaves	A Simple distillation

(ii) Sulphur and iron fillings (iii) Sand and ammonium chloride (iv) Pure water from muddy water (v) Salt from the sea water	B Magnetization C Chromatography D Solvent extraction E Evaporation F Sublimation G Filtration

(FTNA, 2022)

List A	i	ii	iii	iv	v
List B					

SECTION B. Short answer type questions

3. Name one process by which the components of the following mixtures can be separated:

(a) Pigments of green leaf. ……..……..

(b) Water and ethanol. …….

(c) Iodine and potassium chloride. ……

(d) Copper (II) sulphate and sand. ……...……

(e) A mixture of sulphur and iron filings. ……

4. A pure sample of ammonium chloride crystals can be separated from its mixture with sand by heating.

(a) What would be observed during the heating? ……

……

(b) What property of ammonium chloride makes this separation possible? ……

……..

(c) Give one other mixture which can be separated by the above method ……...……

……

5. What property is each of the following methods of separation of mixtures based on:

a. Fractional distillation ……
b. Sublimation ……..
c. Chromatography ……..
d. Magnetic separation …….

6. Describe how the following mixtures can be separated:

a. Oil and water ……
……..
b. Salt from water ……
……
c. Sugar from sand ……
……
d. Sand and water ……....
……...
e. Ethanol and water …….
……...
f. Diesel and kerosene ……..
……...
g. A mixture of different colors ……
……...
h. Iodine and common salt ……
……
i. Iron and sulphur ……
……
……
……

7. How can you separate the following mixtures? Briefly explain.

(i) Water and kerosene ……..……

……

(ii) Salt and water ……..

……

(iii) Ethanol and water ……..

……...
(FTNA 2018)

Best regards,

The Diaprof Team

Please visit our website ***diaprofcamp.com*** for:

- O-level Chemistry notes (Google Search >diaprofcamp.com>Topics)

- Suggested answers (Google Search>diaprofcamp.com>DiaQSA)

- Past papers (Google Search >diaprofcamp.com>Past Papers)

- Top revisions (Google Search >diaprofcamp.com>Top Revisions)

For suggestions or to report errors, please email us at cfoumi@diaprofcamp.com or fill out the contact form on our website: diaprofcamp.com