Multiple Choice Questions

Q1. Which of the following techniques would you use to separate sand from water?

a. Evaporation

b. Sieving

c. Decantation

d. Crystallisation

Q2. What is the purpose of filtration?

a. To attract metallic objects

b. To separate insoluble substances (things that don't dissolve) from a liquid

c. To remove salt from water

d. To make a solution

Q3. Which technique is commonly used to separate salt from water?

a. Sieving

b. Magnetic separation

c. Evaporation

d. Decantation

Q4. What would you use to separate iron filings from a mixture of iron and wood?

a. Filtration

b. Magnetic Separation

c. Decantation

d. Sieving

Q5. Which method is used to separate coffee grounds from liquid coffee?

a. Evaporation

b. Sieving

c. Decantation

d. Filtration

Q6. In which technique do we allow the solid to settle at the bottom and then pour off the liquid?

a. Sieving

b. Filtration

c. Decantation

d. Crystallisation

Q7. How does evaporation work?

Q8. You have a mixture of iron filings, sand, and salt. In the space below, draw a flowchart showing how you would separate this mixture into its components.

Q9. How would you separate a mixture of oil and water? Describe the process.

Q10. Label the following as either a mixture or a pure substance: saltwater, gold, air, salad, carbon dioxide, sand, iron filings.

Pure Substances	Mixtures

Q11. Compare decantation and filtration. What are the advantages and disadvantages of each?

Q12. You are given a mixture containing coffee grounds, steel scraps, seawater, and lemon seeds. Your task is to separate this mixture into its individual components. Note that lemon seeds and coffee grounds do not dissolve in water.

a) Complete the table below, identifying each component and a physical property you could use to remove that component from the mixture.

Component	**Physical Property**

b) What separation technique will you use first, what will be removed because of this technique, and what physical property are you exploiting to make the separation?

c) What will be your second separation technique, what will be removed because of this technique, and what physical property are you exploiting this time?

d) What will be your third separation technique, what will be removed because of this technique, and what physical property are you exploiting for this final separation?

e) What will be your fourth separation technique, what will be removed because of this technique, and what physical property are you exploiting for this final separation?