MINISTRY OF EDUCATION

SECONDARY ENGAGEMENT PROGRAMME

GRADE 10

CHEMISTRY

WEEK 13 **REVIEW**

Circle the correct answer.

1. Which of the following can be classified as a solution?
   I. Steel
   II. Brine
   III. Milk
   A. I only B. I and II C. II only D. II and III
2. The liquid that is immiscible in water is
   A. Ethanol B. gasoline C. milk D. vinegar
3. Three mixtures I, II, III are described as follows:

Mixture	Appearance when shaken	Appearance on standing	Presence of a residue when filtered
I	White opaque	Colourless liquid above white solid	Yes
II	White opaque	No change	No
III	Brown transparent	No change	No

   The mixtures could be classified as:
   A. Solution, suspension, colloids
   B. Suspension, solution, colloids
   C. Colloid, solution, suspension
   D. Suspension, colloid, solution
4. When a liquid changes to gas, there is
   A. A decrease in mass

B. An increase in temperature

C. No change in mass

D. An increase in the size of particles

The table gives the melting points and boiling points of substances P, Q and R. room temperature is 30°C. Use the table to answer questions 5-7.

Substance	Melting point °C	Boiling point °C
P	-30	200
Q	20	80
S	75	444

5. Which of the substances exist in the liquid state at room temperature?

   A) P B)Q C) P and Q D) Q and R

6. Which of the substances exist in the liquid state at 100°C?

   A) P B) Q C) P and Q D) Q and R key D

7. Which of the substances diffuses rapidly at 100°C?

   A) P B) Q C) P and Q D) Q and R key B

8. The table below gives the properties of three substances L,M and N. The density of water is 1g cm.

Substances	Solubility in water	Solubility in gasoline	Density g cm
L	Insoluble	Soluble	0.5
M	Soluble	Insoluble	3.5
N	Soluble	Insoluble	0.8

If you have been given a mixture of the three solids, L can be obtained if you

A) Add water then decant

B) Add water then filter

C) Add gasoline then decant

D) Add gasoline then filter

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Which of the following provides direct evidence for the particulate nature of matter?

A) Chromatography

B) Diffusion

C) Distillation

D) Melting

10. A mixture results when two substances:

A) are separated, but not chemically

B) are chemically separated

C) are combined, but not chemically

D) are combined chemically

11. The method by which the substances in a mixture are separated is called:

A) a chemical reaction

B) a process

C) filtration

D) distillation

12. The purpose of a filter is to:

A) separate mixtures

B) remove impurities

C) separate the components of liquid solutions

D) separate particles that are too fine for distillation

13. The process of boiling in order to separate the components of liquid solutions is called:

A) filtration

B) distillation

C) residue

D) centrifuge

14. When particles are too fine to be filtered, ____ can be used.

A) residue

B) suspension

C) distillation

D) a centrifuge

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WEEK 13 **LESSON – REVIEW**

Answer All Questions

1. How do you work out the number of electrons, protons and neutrons in an atom?

2. Why are few objects made of pure metals?

3. Why is there no overall charge on an atom?

4. Why do all atoms in the same group have similar chemical properties?

5. Why are all group 0 atoms unreactive?

6. What are the differences in the atomic structure of hydrogen and helium atoms?

7. How many electrons can you fit on each shell around the nucleus of an atom?

8. Describe the following reaction in terms of the names of the substances and the number of atoms involved: $2Al + 3Cl_2 \rightarrow 2AlCl_3$

9. State and explain the trend in reactivity down Group 1

10. State and explain the trend in reactivity in group 7.

11. How do ions form?

12. What is a covalent bond?

13. What is an ionic bond?

14. Why does Fe react with CuO but Cu does not react with FeO?

15. What is produced when group 1 metals react with water?

16. Balance this equation: $Ca + O_2 \rightarrow CaO$

17. Balance this equation: $Al + O_2 \rightarrow Al_2O_3$

18. Balance this equation: $Na + H_2O \rightarrow NaOH + H_2$

19. Why must all equations be balanced?

20. Why is the total mass of reactants always equal to the total mass of products?