

N.S.S.S
MID TERM II EXAMS 2012
S1 CHEMISTRY
1½ hours

Name:..... Stream:.....

Instructions:

Answer **all** questions in Section **A** and **B**.

Circle the correct objective in Section **A**.

Answers to Section **B** must be written in the spaces provided.

SECTION A

1. The separation of substances that make up ink by chromatography depends on the
 - A. solubilities of the substance in the solvent.
 - B. rates of movement of the substances.
 - C. freezing point of the substance.
 - D. osmotic point of the solution of ink.

2. Which one of the following gases reduce copper (II) oxide?
 - A. Hydrogen
 - B. Nitrogen
 - C. Carbondioxide
 - D. Nitrogen dioxide

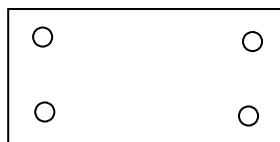
3. Which one of the following mixtures can be separated by filtration?
 - A. Sugar
 - B. Sand and water
 - C. Sulphur and iron
 - D. Water and ethanol

4. When pollen grains are placed on water in a basin and observed under a microscope, the pollen grain particles will be seen to
 - A. all remain stationary.
 - B. stick together in a cluster.
 - C. all move randomly.
 - D. all move in one direction.

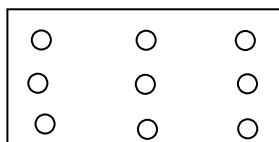
5. Which one of the following substances sublimes when heated?
 - A. Sodium chloride
 - B. Water
 - C. Iodine
 - D. Ammonium nitrate

6. Which one of the following is the correct chemical symbol of lead?
 - A. Ld
 - B. Pd
 - C. Pe

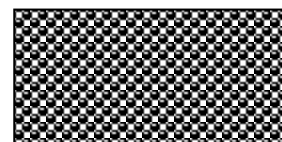
- D. Pb
7. Which one of the following is an element?
 A. Air
 B. Water
 C. Carbondioxide
 D. Carbon
8. The following can be used to prove that matter in the gaseous and liquid state is made up of particles except
 A. Brownian motion.
 B. diffusion.
 C. kinetic energy.
 D. sublimation.
9. Which one of the following mixtures is immiscible?
 A. Water and ethanol
 B. Water and milk
 C. Cooking oil and water
 D. Petrol and diesel
10. Which one of the following parts of the Bunsen burner controls the amount of air entering it during combustion of a gas?
 A. Jet
 B. Chimney
 C. Collar
 D. Gas entrance
11. The figures below show the states of matter.



(i)



(ii)



(iii)

- Which one of them represents the arrangement of particles/molecules in water vapour?
- A. (i)
 B. (ii)
 C. (iii)
 D. (i) and (ii)
12. Which one of the following methods can be used to separate oil from water?
 A. Separating funnel
 B. Fractional distillation
 C. Magnetism
 D. Chromatography
13. Which one of the following is not a mixture?
 A. Air
 B. Oxygen

- C. A solution of salt.
 - D. A solution of sugar.
14. When a solid was heated it changed to gas without passing through the liquid state. This change of state is called
- A. sublimation.
 - B. condensation.
 - C. distillation.
 - D. vapourization.
15. Which one of the following laboratory apparatus can be used to deliver accurately a fixed volume of a liquid substance into a flask?
- A. Measuring cylinder
 - B. Pipette
 - C. Burette
 - D. Beaker
16. The following are examples of physical changes except
- A. sublimation of iodine.
 - B. melting of solid carbon dioxide.
 - C. burning of firewood.
 - D. boiling of water.
17. Which one of the following is not an example of a luminous flame?
- A. Burning firewood flame.
 - B. Candle flame.
 - C. paraffin stove flame.
 - D. Paper flame.
18. Which one of the following observations can be made when sugar crystals are reacted with concentrated sulphuric acid in a beaker?
- A. The sugar turns into a black spongy solid.
 - B. The sugar dissolves to form a red solution.
 - C. The sugar turns into a gas.
 - D. The mixture becomes very cold.
19. Which one of the following is the correct chemical name of K as its chemical symbol?
- A. Potassium
 - B. Potasium
 - C. Pottassium
 - D. Pottasium
20. Which one of the following methods can be used to separate water from ethanol?
- A. Evaporation
 - B. Fractional distillation
 - C. Decantation

D. Distillation

SECTION B

21. (a) What is meant by the term diffusion? **(02 Marks)**

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(b) (i) Smoke was put in a glass cell and viewed under a microscope. State what was observed. **(01 Mark)**

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(ii) Explain your observation. **(01 Mark)**

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(c) During the experiment, a beam of light was passed through a dark dusty room.

(i) State what was observed. **(01 Mark)**

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(ii) Explain your observation in c(i) above. **(01 Mark)**

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(d) The temperature of the room was increased.

(i) State what was observed. **(01 Mark)**

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(ii) Give a reason for your answer in d(i) above. **(01 Mark)**

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22. (a) What is a mixture? **(02 Marks)**

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(b) Name one process by which the components of the following mixtures can be separated: **(06 Marks)**

(i) Pigment of a green leaf

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(ii) Iodine and sand

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(iii) Water and cooking oil

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(iv) Water and ethanol

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(v) Iron fillings and sulphur

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(vi) Sand and water

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END