FORM 1 MIDTERM 3 EXAM

CHEMISTRY

NAME: …… ADM NO: …….. CLASS: ……

TIME: 1 ½ HOURS

Answer all the questions in the spaces provided.

1. What is Chemistry? (1 mk)

2. Give three advantages of studying Chemistry. (3 mks)

3. Give the functions of the following laboratory apparatus. (5 mks)
   (i) Crucible –

   (ii) Desicator –

   (iii) Dropping funnel –

   (iv) Thistle funnel –

   (v) Tongs -

4. Define the following terms: (4 mks)
   (i) Drug –

   (ii) Drug abuse –

   (iii) Prescription –

   (iv) Indicator –

5. Give the differences between luminous flame and non-luminous flame. (5 mks)

Luminous	Non-luminous
(i)	
(ii)	
(iii)	
(iv)	
(v)	

6. (a) After use, a non-luminous flame should be put off or adjusted to a luminous flame. Explain. (2 mks)

(b) State any 6 safety rules in the laboratory. (6 mks)

7. Name three substances that undergo sublimation. (3 mks)

8. Give the methods that can be used to separate the following mixtures:- (3 mks)
   (i) Iron filings and sulphur.

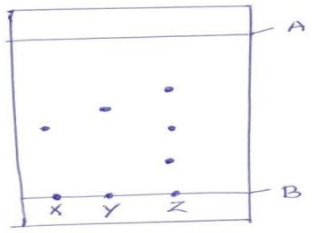
   (ii) Sodium chloride and aluminium chloride.

   (iii) Common salt and water

9. (a) What is fractional distillation? (1 mk)

(b) Give two applications of fractional distillation. (2 mks)

10. The diagram below shows a chromatogram obtained when spots of pigments X, Y and a mixture of Z were placed on an absorbent material and allowed to dry. The paper was then dipped in a solvent and results obtained as shown below.



(a) Name A and B. (2 mks)

(b) Which pure pigment was a component of Z. (1 mk)

(c) What are the factors that determine the distance moved by the spots? (2 mks)

(d) Why is water not used as a solvent? (1 mk)

11. Give the names of the compounds formed by the following elements: (3 mks)
(a) Carbon and oxygen

(b) Sodium and sulphur.

(c) Sodium, carbon and oxygen.

12. Complete the following word equations:- (4 mks)
(a) Sodium carbonate + dilute sulphuric acid

(b) Sodium + water

(c) Sodium hydrogen carbonate + dilute hydrochloric acid

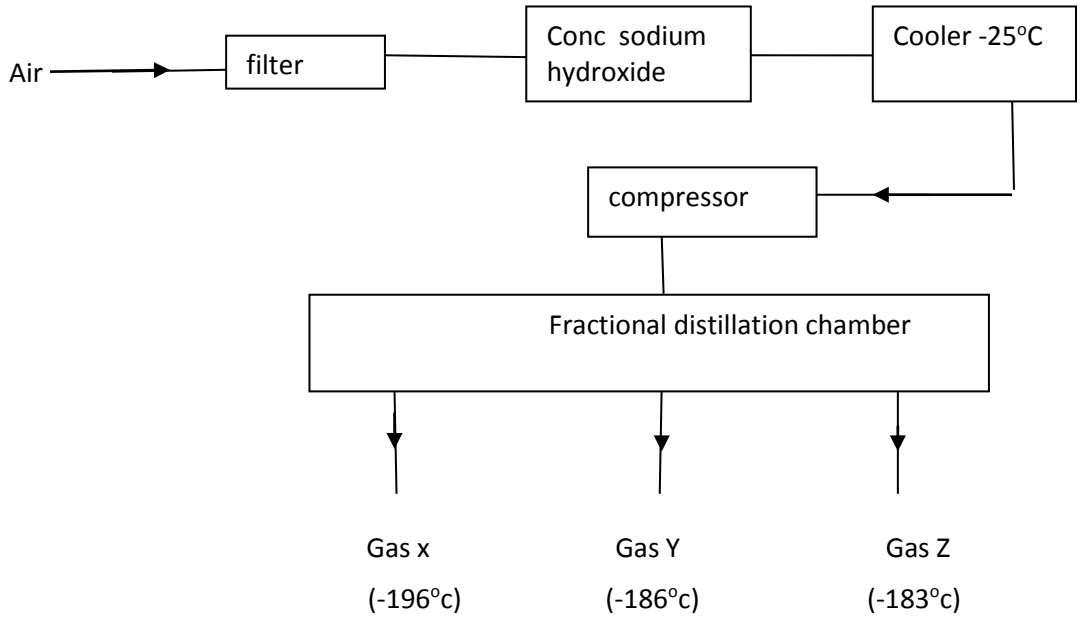
(d) Magnesium + Dilute hydrochloric acid

13. Give two differences between acids and bases. (2 mks)

Acids	Bases
(a)	
(b)	

14. Give two uses of bases. (2 mks)

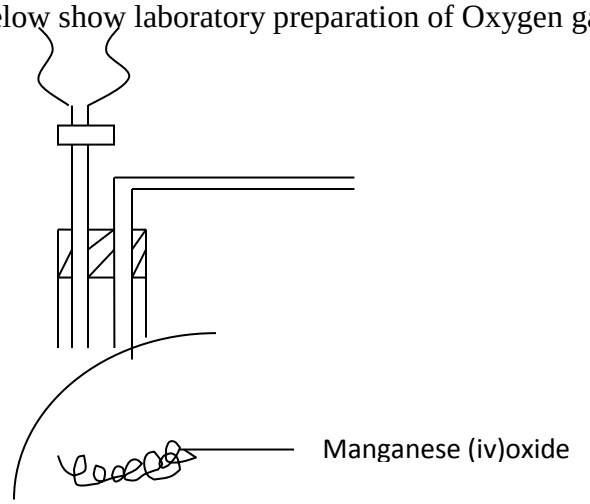
15. The diagram below shows the fractional distillation of liquefied air. Study it and answer the questions that follow.



a) Name the substances removed in the filtration chamber. (1mk)

b) Name gases X, Y and Z. (3mks)

16. The diagram below show laboratory preparation of Oxygen gas.



a) Complete the gas to show how oxygen gas is collected. (2mks)

b) Why is oxygen gas collected as shown above. (1mk)

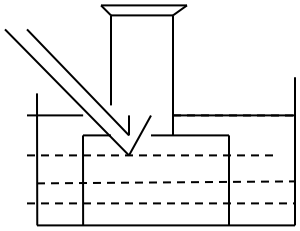
c) Write a word equation for the equation of the reaction occurring above. (1mk)

d) Give 3 uses of oxygen gas. (3mks)

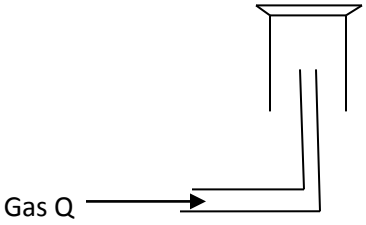
17. With the help of word equations identify the products of heating candle wax. (3mks)

18. Name the following methods of gas collection (3mks)

Gas P

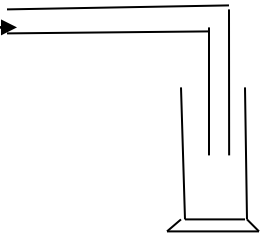


(i)



(ii)

Gas R



(iii)

19. Give 2 uses of hydrogen gas. (2mks)