Name: ....Signature:...........................

545/1
CHEMISTRY
Paper 1
MID TERM 1 S.3
2019

DEPARMENT OF CHEMISTRY

Uganda Certificate of Education

CHEMISTRY

Paper 1

1 HOUR

Instructions

Circle the right alternative.

1. The valency of R in $R_2(SO4)3$ is

A. 2 B. 4 C. 3 D. 5

2. The atomic number of element S is 17. In which group of the periodic table is S.

A. I B. II C. V D. VI

3. Isotopes of an element have got

A. Same number of protons and neutrons

B. Same number of electrons and protons

C. Different number of electrons and protons

D. Same number of electrons and protons

4. A gas is collected by upward delivery when

A. It is slightly soluble in water

B. It is less dense than air

C. It is a gas with low boiling point

D. It forms a reaction with water

5. Which of the following solutions would dissolve in water to form a solution that will turn red litmus blue?

A. Sodium chloride B. Sodium hydroxide C. Sodium sulphate D. sodium nitrate

6. Element M reacts with chlorine to form a compound with formular MCl_4. The formular of oxide of M is

A. M_2O B. MO C. MO_4 D. MO_2

7. The following is the order of reactivity of metals with water from highest to lowest

A. Sodium magnesium lead copper

B. Magnesium sodium copper lead

C. Copper lead magnesium sodium

D. Lead copper sodium magnesium

8. Zinc reacts with hydrochloric acid according to the following equation

$Zn(aq) + 2HCl(aq) \rightarrow ZnCl_2(aq) + H_2(g)$

The number of moles of hydrochloric acid required to react completely with 7.0g of Zinc is (R.A.M of Zinc is 65, H = 1)

A. $\frac{65 \times 2}{7.0}$ B. $\frac{65 \times 7.0}{2}$ C. $\frac{7.0 \times 2}{65}$ D. $65 \times 7.0 \times 2$

9. The separation of ink substances by chromatography depends on the following

A. Size of chromatography paper

B. Solubilities of substance in a solvent

C. Freezing points of substances

D. Osmotic pressure of the solution of ink

10. The following carbonate decomposes to give a colourless gas which is alkaline

A. Calcium carbonate B. Zinc carbonate C. Potassium carbonate D. Ammoniumcarbonate

11. Most metals react with dilute mineral acids to form

A. Hydrogen gas only C. The salt of the metal only

B. Salt of metal and water D. Salt of the metal and hydrogen gas

12. Which of the following substances below conducts electricity in solid state?

A. Graphite B. Sulphur C. Iodine D. Phosphorus

13. Chlorine atom has electronic configuration 2:8:7. The electronic configuration of the ion of chlorine

is

A. 2:8:7 B. 2:8:8 C. 2:8:6 D. 2:8:5

14. Brass is an alloy of;

A. Tin and copper C. Zinc and copper

B. Lead and copper D. Aluminum and copper

15. The number of neutrons in the nucleus of an atom $^{37}_{17}X$ is

A. 17   B. 20   C. 37   D. 54

16. Which one of the following mixtures is best separated by chromatography

A. Ink B. Crude petroleum C. Water and oil D. Water and ethanol

18. Atoms of elements in the same group of the periodic table have the same number of

A. Outer shell electronsC. Protons in the nucleus

B. Electrons outside the nucleus D. Neutrons in the nucleus

19. The process y which water vapour is changed into de is called

A. Distillation B. Efflorescence C. Condensation D. Evaporation

20. Rust is hydrated …………………………………………………………….

A. Iron oxide B. Iron(iii)hydroxide C. Iron(ii)oxide D. Iron(ii)hydroxide

21. Magnesium is in group(ii) of the periodic table. The valency of magnesium is

A. 3 B. 2 C. 4 D. 2

22. In the preparation of hydrogen from Zinc and hydrochloric acid. The rate of reaction is increased by adding

A. Nickel B. Copper sulphate   C. Platinum D. Magnesium dioxide

23. Which one of the following sulphates contains the highest percentage of Sulphur? (H=1, O=16, Na=23, Ca=40, Cu=64)

A. $(NH)_2SO_4$ B. Na_2SO_4 C. $CaSO_4$ D. $CuSO_4$

24. Which one of the following metals will react with oxygen to form an amphoteric oxide?

A. Zinc   B. Iron   C. Copper   D. Magnesium

25. 0.2 moles of a hydroxide , $X(OH)_2$. Which one of the following is the relative atomic mass of X? (H=1, O=16)

A. 24   B.34   C.58   D. 41