

MENGO SENIOR SCHOOL ONLINE CHEMISTRY TEST
SENIOR THREE
DURATION: 1 HOUR

1. Which one of the following methods is used to separate a mixture of diesel and water?
A. Filtration
B. Evaporation.
C. Chromatography.
D. Separating funnel.
2. Which one of the following is the major constituent of air?
A. Oxygen
B. Nitrogen
C. Carbondioxide
D. Water vapour.
3. Which one of the following electronic configuration is of a nobble gas?
A. 2:8:1
B. 2:8:8
C. 2:8:2
D. 2:8:7
4. Amonia is not used
A. as fertilizer
B. as refrigerant
C. for reducing copper (II) oxide to copper.
D. in the manufacture of nitric acid.
5. Which of the following metals will react most readily with cold water?
A. Sodium
B. Calcium
C. Magnesium
D. Potassium.
6. Which of the following substances is used to test for the presence of oxygen?
A. a glowing splint.
B. a burning splint
C. Litmus paper
D. Anhydrous copper (II) sulphate.

7. Which one the following methods is used to separate the alkanes in crude petroleum?
- A. Filtration
 - B. Decantation
 - C. Fractional distillation
 - D. Fractional crystallization.
8. Which one the following substances when burnt in oxygen will form product (s) that dissolve in water to give a solution with PH greater than 7?
- A. Carbon
 - B. Amonia
 - C. Sulphur
 - D. Calicium
9. The atomic number of element X is 11. Which one of the following is not a property of the oxide of X?
- A. it has a high melting point.
 - B. It conducts electricity in solid state.
 - C. It is soluble in water.
 - D. It is a basic oxide.
10. Which one of the following substance is not formed when zinc nitrate is heated strongly?
- A. O_2
 - B. ZnO
 - C. NO_2
 - D. NO
11. Element Y has atomic number 13. The chemical bond in the sulphide of Y is?
- A. Ionic bond
 - B. Covalent bond
 - C. Dative bond
 - D. Metallic bond.
12. A hydrocarbon C_xH_y burns in oxygen according to the following equation;
$$C_xH_y(g) + 5O_2(g) \longrightarrow 3CO_2(g) + 4H_2O(l)$$

Which one of the following are the values of X and Y respectively?
- A. 1 and 4
 - B. 2 and 4
 - C. 3 and 8
 - D. 4 and 10

13. Which one of the following cations will react with dilute sodium hydroxide to form a precipitate that does not dissolve in excess alkali?
- A. Al^{3+}
 - B. Mg^{2+}
 - C. Zn^{2+}
 - D. Pb^{2+}
14. Brass is an alloy of?
- A. Lead and Tin
 - B. Iron and carbon
 - C. Copper and Zinc
 - D. Magnesium and Alluminium.
15. The atomic number of an element T is 15. Which one of the following is the nature of oxide of T?
- A. Acidic
 - B. Neutral
 - C. Basic
 - D. Amphoteric
16. Which one of the following metals is used in the laboratory preparation of hydrogen?
- A. Iron
 - B. Zinc
 - C. Magnesium
 - D. Potassium
17. Which one of the following substances is not decomposed when strongly heated?
- A. K_2CO_3
 - B. $NaNO_3$
 - C. $FeSO_4$
 - D. $NaHCO_3$
18. Which one of the following pairs of substances will react when strongly heated together?
- A. Magnesium oxide and Iron
 - B. Zinc and Aluminium oxide
 - C. Iron (III) oxide and copper
 - D. Lead (II) oxide and magnesium.
19. Which one of the following gases can bleach flowers but not litmus paper?

- A. Sulphur dioxide
- B. Nitrogen dioxide
- C. Sulphur trioxide
- D. Chlorine

20. Which one of the following statements is true about Chlorine?

- A. It displaces fluorine from solution of its salts.
- B. It is a reducing agent.
- C. It is less dense than air.
- D. It forms a precipitate with lead (II) nitrate solution.

INSTRUCTIONS SUMMARIZED.

	Assertion		Reason
A.	True		True (Reason is a correct explanation)
B.	True		True(Reason is not a correct explanation)
C.	True		Incorrect
D.	Incorrect		Correct.
21.	Nitrogen diffuses faster than carbondioxide	because	Nitrogen molecules are monatomic.
22.	Magnesium has oxidation number of +2	because	Magnesium lacks six electrons to complete the octet structure
23.	Copper reacts with concentrated nitric acid to produce nitrogen monoxide	because	Copper is above hydrogen in the electrochemical series.
24.	Oxygen molecule is diatomic	because	it has a high melting point.
25.	Permanent hardness of water is caused by the presence of magnesium and calcium ions in water.	because	these elements form sulphate compounds.

INSTRUCTIONS SUMMARIZED.

- A. *If 1, 2, 3 only are correct.*
B. *If 1, 3 only are correct.*
C. *If 2 and 4 only are correct.*
D. *If 4 only is correct.*
26. The order of reactivity of metals Z, Y and X is $Y > Z > X$. Which one of the following statements about the reaction of the metals is/are/true?
1. Z displaces X from a solution containing its ions.
 2. An oxide of Z reacts with both X and Y.
 3. An oxide of Z reacts with Y but not X.
 4. X dissolves in an aqueous solution containing Y ions.
27. Which of the following methods can be used to separate a soluble solid from its solution?
1. Distillation
 2. Evaporation
 3. Crystallization
 4. Chromatography.
28. Which of the following is/are natural polymers?
1. Cellulose
 2. Terylene
 3. Protein
 4. Nylon
29. Element X (atomic number 12) combines with element W (atomic number 17) to form compound Q. Compound Q
1. is soluble in water
 2. is a solid at room temperature
 3. conducts electricity in molten state.
 4. is soluble in organic solvents.
30. Which of the following properties of metals is/are as results of its/their having free delocalized electrons?
1. Electrical conduction
 2. Ductility
 3. Heat conduction
 4. Malleability.

END