

YEKA SYEUB-CITY EDUCATION BUREAU

GRADE EIGHT MODEL EXAM

SUBJECT CHEMISTRY

Time allowed 1hr

2012/2020

Choose the best answer from the following alternative

1. The essence of chemistry is **NOT** mainly concerned with

- A) Making water clean and safe to drink
- B) Recycling used up material
- C) Solving problems of the society
- D) Grouping organisms in to different species

2. Chemical industry in Ethiopia that produce caustic soda is located at

- A) Kombolcha
- B) Zeway
- C) Bulbula
- D) Awash Melkasa

3. Which of the following chemical kills weeds?

- A) Herbicide
- B) Insecticide
- C) Detergent
- D) Fertilizer

4. The physical properties recognized by our sense organs

- A) Density
- B) Color
- C) Conductivity
- D) Melting point

5. The correct steps to separate the mixture of sand and salt

- A) Filtration → Dissolving → Evaporation
- B) Evaporation → Filtration → Dissolving
- C) Condensation → Dissolving → Filtration
- B) Dissolving → Filtration → Evaporation

6. Which of the following substance make a homogenous mixture with water?

- A) Sand
- B) Oil
- C) Salt
- D) Sulfur

7. The conversion of solid directly into the gas is called

- A) Sublimation
- B) Deposition
- C) Melting
- D) Evaporation

8. From the following elements which one exists as diatomic molecules?

- A) Phosphorous
- B) Carbon
- C) Chlorine
- D) Sulfur

9. Breaking, hammering and powdering of matter are similar because all are.....

- A) Change of state
- B) Mechanical change
- C) Chemical change
- D) none of the above

10. The chemical symbol “Ag “represents

- A) Silver
- B) Gold
- C) Aluminum
- D) Mercury

11. Pure substances are classified into and

- A) Element and compound
- B) Homogenous and heterogeneous
- C) Organic and inorganic
- D) Mixture and compound

12. Which of the following statement is **wrong** about an atom?
- A) Neutral atom contain equal number of protons and electrons
 - B) Electrons are rotate around the nucleus
 - C) Protons are positively charged particles
 - D) The nucleus contains protons and electrons
13. How many neutrons are there in an atom of sulfur? ($Z=16$, $A=31$)
- A) 16
 - B) 15
 - C) 31
 - D) 47
14. The total number of sulfur present in $3Al_2SO_4$
- A) 6
 - B) 12
 - C) 1
 - D) 3
15. Which of the following is NOT true in writing chemical equation?
- A) The symbols and formulas must be written correctly
 - B) The chemical equation must be balanced
 - C) The reactants must be written on left side of the arrow
 - D) Reactants and products are separated by the arrow
16. The chemical formula of calcium hydride is
- A) CaH_2
 - B) CaH
 - C) Ca_2H
 - D) $CaOH$
17. When the equation $Fe + Cl_2 \xrightarrow{\hspace{1cm}} FeCl_3$ is balanced, the Coefficient of Cl_2 is
- A) 2
 - B) 4
 - C) 6
 - D) 3
18. The valence number of a metallic element "X" is 3 what is the formula of its oxide
- A) X_2O
 - B) X_3O_2
 - C) X_2O_3
 - D) XO_3

19. The number of electrons in ${}_{13}^{27}\text{Al}^{+3}$
A) 13 B) 10 C) 16 D) 14
20. The electronic configuration of potassium is ($Z = 19$)
A) 2, 8, 9 B) 2, 8, 8, 1 C) 10, 9 D) 10, 8, 1
21. ${}_{12}^{24}\text{X}$ Is an element that belongs to?
A) Period 3, group II A C) Period 4, group VI A
B) Period 2, Group III A D) Period 6, group IV A
22. The first attempt of classification of elements was made by
A) Doberiener B) Newland C) Mendeleev D) Meyer
23. How many elements are found in the 3rd period of the modern Periodic table?
A) 8 B) 2 C) 32 D) 18
24. The formula used to calculate the maximum number of electrons in each shell or energy level is
A) $3n^2$ B) $2n^3$ C) $2n^2$ D) $3n^3$
25. Which one of the following element is NOT the member of alkali metals?
A) ${}_{11}^{23}\text{Na}$ B) ${}_{20}^{40}\text{Ca}$ C) ${}_{19}^{39}\text{K}$ D) ${}_{3}^7\text{Li}$
26. The first organic compound prepared in the laboratory is.....
A) Alcohol B) Formalin C) Urea D) Sugar
27. All of the following compounds are organic EXCEPT
A) Sugar B) Animal fat C) Vegetable oil D) Common salt

28. The chemical formula of octane is

- A) C_6H_{14} B) C_8H_{18} C) C_9H_{20} D) C_7H_{16}

29. Which of the following formula represents an alkyne containing six carbon atoms?

- A) C_6H_{10} B) C_6H_{14} D) C_6H_{12} D) C_6H_6

30. Biological spacemen's can be preserved by using.....

- A) Ethanol B) Formalin C) Decane D) Avinger

31. Which of the following compound is acidic oxide?

- A) CaO B) K_2O C) Na_2O D) CO_2

32.is contains relatively large amount of acid dissolved in small amount of water.

- A) Strong acid C) Concentrated acid
B) Weak acid D) Dilute acid

33. Which of the following solution likely to have P^H value less than 7?

- A) Soap solution C) Distilled water
B) Lemon solution D) Ammonia solution

34. An acid used as an electrolyte in car batteries

- A) HNO_3 B) H_2SO_4 C) HCl D) H_3PO_4

35. Bases which are soluble in water are called.....

- A) Alkane B) Weak base C) Alcohol D) Alkalis

36. Which of the following base is used for neutralizing acidic soil?
A) $\text{Ca}(\text{OH})_2$ B) NaOH C) $\text{Al}(\text{OH})_3$ D) KOH
37. Which one of the following is a property of base?
A) P^{H} value greater than 7 C) Release H^+ in water solution
B) Change the color of blue litmus into red D) P^{H} value less than 7
38. A compound used for production of cement
A) Potassium carbonate C) Calcium carbonate
B) Sodium carbonate D) Magnesium carbonate
39. Salts of sulfuric acid are called.....
A) Sulfide B) Sulfate C) Sulfite D) Sulfur
40. Which of the following pairs of elements are liquid at room temperature?
A) Iron and Gold C) Sodium and Magnesium
B) Lead and Tin D) Mercury and Bromine
41. The ability of metal to be made into thin sheet is called.....
A) Conductivity C) Malleability
B) Ductility D) Brittle
42. Sodium and Potassium are stored under liquid hydro carbon because
A) they are solid C) they are less reactive
B) they are reactive D) they are most abundant
43. Among the following metals which one is soft and can be cut with knife?
A) Ag B) Au C) Cu D) Na

44. A metal used for construction of air plane bodies
A) Aluminum B) Copper C) Calcium D) Silver
45. The second most abundant metal in the earth crust is
A) Magnesium B) Iron C) Copper D) Sodium
46. Musical instruments are mostly made from metal because metals are
A) Lustrous B) malleable C) sonorous D) ductile
47. The metal with the highest melting point is
A) Potassium B) Tungsten C) Iron D) Silver
48. A chemical used for extracting gold and silver from there ore
A) Sodium chloride C) Sodium cyanide
B) Sodium carbonate D) Sodium peroxide
49. An element that can catch fire in the atmosphere
A) Carbon B) Sulfur C) Nitrogen D) Phosphorous
50. What are the two allotropic form of sulfur?
A) Diamond and Graphite C) Rhombic and Monoclinic
B) White and red D) Gray and White
51. Mineral ore of copper
A) Bauxite B) Hematite C) Chalcocite D) Dolomite
52. Air pollutants that may escape to the air during road construction and other human activity are called.....
A) Carbon dioxide C) Sulfur dioxide
B) Nitrogen monoxide D) Particulate

53. The most abundant element in the atmospheric air is-
- A) H_2 B) O_2 C) CO_2 D) N_2
54. Which of the following nonmetallic element has allotropes that used in jewelry?
- A) Nitrogen B) Carbon C) Sulfur D) Phosphorus
55. Ammonia is prepared by.....
- A) Haber process C) Cyanide process
B) Frasch process D) Contact process
56. One of the major pollutants in water during agriculture
- A) Sewages B) Pesticide C) Heavy metal D) Detergent
57. Which of the following is NOT causes of air pollution?
- A) Gaseous chemical releases from factory
B) Burning of fossil fuel
C) Hydroelectric plant
D) Volcanic eruption
58. A chemical treatment method of water mostly used to remove bacteria and other harmful is-
- A) Filtration C) Addition of aluminum sulfate
B) Chlorination D) Screening
- 59.....is protect our earths biosphere from ultraviolet rays (UV)
- A) Oxygen B) Ozone C) Nitrogen D) Carbon dioxide
60. Global warming is caused by the increased amount ofin the atmosphere.
- A) CO B) NO_2 C) SO_2 D) CO_2

