2YEKA SUB-CITY ADMINISTRATI EDUCATION BUREAU2

GRADE EIGHT MODEL EXAM
CHEMISTRY EXAMINATION
2012/2020

Number of Items: 60 **Time Allowed: 1 Hour**

1. One of the following is **NOT** the branch of natural science.
   A) Biology B) Physics C) Civics D) Chemistry
2. Which one of the following the correct general formula of alkynes.
   A) CnH_2n-2 B) CnH_2n+2 C) CnH2n D) $2n^2$
3. Which one of the following the essence of chemistry.
   A) Searching for solutions to problems of mankind.
   B) Relying only on experimentally proved fact.
   C) Satisfying social needs by producing new material. D) All
4. One of the following is liquid alkane that used for fuel engines.
   A) Decane B) Formalin C) Octane D) Octyne
5. Where is located pharmaceutical industry in Ethiopia?
   A) Addis Ababa B) Adigrat C) Wonji D) A & B
6. Which one of the following is acidic metallic oxide?
   A) CrO_3 B) SO_2 C) Li_2O D) CO_2
7. One of the following is the role of chemistry in construction.
   A) The production of pesticides B) The production of aluminum
   C) The production of dry cells D)The production of textiles
8. When the organic compounds containing hydrogen and carbon are called----------
   A) Homologous B) Homologous series C) Hydrocarbons D) Alkenes
9. Which one of the following is homogeneous mixture?
   A) Sea water B) sand & water C) muddy water D) Oil & water
10. One of the following is binary compounds.
    A) Acids B) Oxides C) Bases D) Salts
11. Which types of physical change is the change of size and shape of the material?
    A) Solution B) Change of state C) Mechanical changes D) Dissolving substances
12. During the thermal decomposition of nitrate can be produced:
    A) Oxygen B) Metallic oxide C) Nitrogen dioxide D) All
13. Which one of the following **NOT** the properties of physical change.
    A) The change is difficult to reverse B) No change in composition occurs
    C) Energy changes are not necessary D) The change is easy to reverse
14. An instrument that can measure the alkalinity & acidity of a solution.
    A) PH meter B) PH scale C) Beam balance D) Thermometer
15. An instrument that used to separate two immiscible liquid.
    A) Funnel B) Crucible C) Separator funnel D) Beaker

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16. One of the following salts are differs from the others.
    A) Na_2SO_4 B) $CaCl_2$ C) $Mg(HCO_3)_2$ D) None
17. During in the filtration process the liquid pass through filter paper and the solid remain on the filter paper, what is said to be the remaining solid particle on the filter paper?
    A) Filtrate B) Residue C) Distillate D) Condenser
18. Which one of the following bases are strong base.
    A) $Mg(OH)_2$ B) $Al(OH)_3$ C) NaOH D) $Cu(OH)_2$
19. Which one of the following the principal ores of iron?
    A) Hematite B) Magnetite C) A & B D) All
20. Which is the common precaution when working with acids & bases?
    A) Wiping up all spillages straight away with a wet cloth.
    B) Keeping reagent bottles stopper when not in use
    C) Wearing eye protection (goggles) D) All
21. Which one of the following the best conductors of heat and electricity?
    A) Gold B) Silver C) Copper D) Aluminum
22. One of the following types of oxides is grouped under amphoteric oxide.
    A) NO B) Al_2O_3 C) SO_2 D) MgO
23. Which one is the following are **NOT** measurable physical properties of substances?
    A) Color B) Density C) Melting point D) Electrical conductivity
24. Metals have the quality of reflecting light from their surfaces and can be polished these characteristics of metal are expressed:
    A) Malleability B) Ductility C) Lustrous D) Sonorous
25. When the stone occupies a volume of $30cm^3$ and has a mass of 200.6g. What is the density of stone? A) $3.8g/cm^3$ B) $6.68g/cm^3$ C) $8.68g/cm^3$ D) $4.68g/cm^3$
26. What is the principal ores of Aluminum?
    A) Bauxite B) Dolomite C) Halite D) Sylvite
27. Who states the low of **triads** in the periodic classification?
    A) John Newlands B) J.W. Dobereiner C) Mendeleev's D) John Dalton
28. One of the following is **NOT** describe physical properties of a substance.
    A) Ethyl alcohol boils at 78^oc B) Silver is the best conductor of electricity
    C) Benzene is an inflammable liquid. D) Charcoal burns in air to form carbon dioxide
29. Which metallic oxide is used for submarines and spacecraft?
    A) KO_2 B) Na_2O C) MgO D) K_2O_2
30. A substance that can be categorized under pure substances.
    A) Au B) NH_3 C) H_2O D) All

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31. Which one of the following iron is the purest form of iron?
    A) Pig iron B) Cast iron C) Wrought iron D) Steel
32. The vertical column of the elements in the periodic table are known as----------
    A) Periods B) Groups C) Families D) B &C
33. One of the following pure substances can **NOT** be broken down into simpler substances.
    A) Mixture B) Element C) Compound D) Base
34. What is the importance of alloy:
    A) To make metal more resistant to corrosion B) To get good casting
    C) To increase the elasticity, tensile strength & toughness D) All
35. The total charge of protons in the nucleus of an atom is known as:
    A) Atomic size B) Nuclear charge C) Metallic character D) Non- metallic character
36. From the following properties of substance which is describe compounds?
    A) Can be broken down into simpler substances B) Cannot be broken down in to simpler
    C) composed of one type of atom D) Simplest type of matter that retains properties
37. Which one of the following noble metal used to make artificial joints and hips?
    A) Tantalum B) Gold C) Platinum D) Silver
38. Group VIIA elements commonly known as:
    A) Boron family B) Noble gases C) Halogens D)Carbon family
39. One of the following is the short hand notation for the chemical formula of an element.
    A) Chemical formula B) Symbol C) Compound D) valence
40. One of the following allotropy of carbon is used for electrodes in dry cells.
    A) Diamond B) Fullerenes C) Graphite D) All
41. Which one of the following are poly atomic ions.
    A) PO^{3-}_4 B) HSO_4^- C) NH_4^+ D) All
42. Which one of the following is correctly matched elements with their allotropy?
    A) Rhombic- carbon B) Fullerenes – phosphorous C) Monoclinic- Sulphur D) All
43. 3Fe represents : A) 3 atoms of iron B) 3 iron molecules C) 3 iron ion D) None
44. One of the following non- metallic elements known for making rat poisonous.
    A) Nitrogen B) Phosphorous C) Oxygen D) Carbon
45. The representation of a chemical reaction with symbols and formulas of the substances is called ----------
    A) Reactant B) Product C) Chemical equation D) Chemical formula
46. Which one of the following the most abundant element in the atmospheric air?
    A) Nitrogen B) Aluminum C) Oxygen D) phosphorous

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47. Which one of the following the second steps in writing simple chemical equation.
    A) Write a word equation for the reaction B) Balance the equation
    C) Change the word equation to a chemical reaction D) None
48. Which one of the following **NOT** the properties of non- metal?
    A) Poor conductors of heat and electricity EXCEPT graphite
    B) Brittle EXCEPT Diamond
    C) Has low melting and boiling point EXCEPT Carbon
    D) Lustrous EXCEPT Iodine & Graphite
49. One of the following balancing chemical equations is trial & error method.
    A) Least common multiple B) Inspection method C) Algebraic expression D) All
50. From the following alternative one is balanced chemical equation.
    A) $Na + Cl_2 \rightarrow NaCl$ B) $Mg + O_2 \rightarrow MgO_2$
    C) $Al + SO_4 \rightarrow Al_2(SO_4)_3$ D) $2Fe(III) + 3Cl_2 \rightarrow 2FeCl_3$
51. What are the energy levels of 'N' in an atomic shell?
    A) 32 B)18 C) 52 D) 8
52. Which one of the following the common air pollutants?
    A) SO_2 B) CO C) NO_2 D) All
53. What are they the short coming of Daltons atomic theory?
    A) Atoms are indivisible B) Atoms of the same element have the same mass
    C) A & B D) All
54. From the given alternative one is the green house gas.
    A) CO_2 B) Water vapor C) A & B D) SO_2
55. Which one of the following sub- atomic particles have positively charged?
    A) Electron B) Proton C) Neutron D) All
56. One of the following substances is the cause of hard water.
    A) $Mg\ Cl_2$ B) $CaSO_4$ C) $MgSO_4$ D) All
57. ${}^{X}_{Y}Q$ from this representation 'y' represents :
    A) Symbol B) Mass number C) Atomic number D) Electron number
58. What are the methods that use micro-organisms to decompose waste substances in water?
    A) Biological treatment B) Chemical treatment C) Screening D) chlorination
59. An atom ${}^{40}_{20}Ca$ contains:
    A) 20-electrons, 19-protons, 21-neutrons B) 20-protons, 20-electrons, 20-neutrons.
    C) 21-neutrons, 20-protons, 19-electrons D) 22-protons, 18-neutrons, 22-electrons
60. What are the methods are used to treat (removed) temporary hard water?
    A) Boiling B) Adding Na_2CO_3
    C) Adding hydrogen carbonates D) Adding washing soda