

Chem. G11-Q3W8-Quarter revision-Quarter Exam

Multiple Choice

Identify the choice that best completes the statement or answers the question.

- _____ 1. Fractional distillation of petroleum works because the components all have different _____.
a. boiling points
b. melting points
c. molecular structures
d. chemical properties
- _____ 2. Acids produce _____ in order to conduct electricity in water.
a. H^+
b. H_2O
c. H_3O^+
d. OH^-
- _____ 3. In the electrolysis of potassium bromide, bromine appears at the _____.
a. anion
b. anode
c. cation
d. cathode
- _____ 4. The type of acid-base reaction that always goes to completion is the reaction between _____.
a. a strong acid and a strong base
b. a strong acid and a weak base
c. a weak acid and a strong base
d. a weak acid and a weak base
- _____ 5. During respiration, what element is reduced?
a. carbon
b. oxygen
c. hydrogen
d. magnesium
- _____ 6. One disadvantage of nickel-cadmium batteries that improved technology cannot overcome is the _____.
a. size
b. toxicity of cadmium
c. cost
d. power limitations
- _____ 7. A strip of magnesium is placed in a silver nitrate solution, and a strip of silver is placed in a solution of magnesium chloride. In which case will a reaction take place?
a. silver in magnesium chloride
b. Both will react.
c. magnesium in silver nitrate
d. Neither will react.
- _____ 8. In the equation, $2\text{K}^+ + 2\text{Cl}^- \rightarrow 2\text{K(l)} + \text{Cl}_2\text{(g)}$, what is the cation?
a. K^+
b. Cl^-
c. Cl_2
d. K
- _____ 9. All of the following are biochemical redox processes except _____.
a. corrosion
b. respiration
c. photosynthesis
d. bioluminescence
- _____ 10. The size of an electrical current depends on _____ potential difference.
a. whether there is a
b. the direction of the
c. the source of the
d. the size of the
- _____ 11. One type of experimental battery for electric cars uses the active metal _____.
a. sodium
b. lithium
c. rubidium
d. potassium
- _____ 12. The properties of the _____ makes a dry cell "dry."
a. electrolyte
b. anode
c. casing
d. cathode
- _____ 13. An oxidation reaction occurs only in the presence of _____.
a. a metal
b. oxygen
c. hydrogen
d. a reduction reaction

- ____ 14. Acids react with carbonates to produce _____.
a. hydrogen c. a base
b. a hydronium ion d. carbon dioxide
- ____ 15. A device used to measure the flow of current in a cell is the _____.
a. cathode c. voltmeter
b. anode d. salt bridge
- ____ 16. The weak acid in the following list is _____.
a. nitric acid c. acetic acid
b. hydrochloric acid d. sulfuric acid
- ____ 17. Assume an object is to be plated with copper. In the electroplating process, the anode is made of _____.
a. an electrolyte c. carbon
b. copper d. the object itself
- ____ 18. In electrolysis, which reaction—oxidation or reduction—occurs at a faster rate?
a. oxidation c. It depends on the reaction.
b. reduction d. They occur at the same rate.
- ____ 19. The total number of possible different kinds of acid-base reactions is _____.
a. 4 c. 2
b. 3 d. 1
- ____ 20. Using an electrical current to break molten bauxite, Al_2O_3 , into aluminum metal and a gas is an example of _____.
a. a cathode c. recycling
b. electrolysis d. an anode
- ____ 21. When a lead storage battery operates, _____ is oxidized.
a. Pb^{4+} c. Pb^{2+}
b. Pb d. H_2SO_4
- ____ 22. The reaction between an acid and a base always results in the formation of _____.
a. a basic anhydride c. an acid anhydride
b. a spectator ion d. a salt
- ____ 23. Reduction is a(n) _____.
a. half-reaction c. loss of electrons
b. agent d. redox reaction
- ____ 24. The effect of antacid on stomach fluids is to _____.
a. make them basic c. decrease their pH
b. make them neutral d. increase their pH
- ____ 25. Chemiluminescent reactions release _____.
a. light c. gases
b. odors d. heat
- ____ 26. When an element is reduced, its oxidation number _____.
a. increases c. decreases
b. stays the same d. may increase or decrease
- ____ 27. An acidic solution would have a pH of _____.
a. less than 7 c. 7 or below
b. 7 or above d. more than 7
- ____ 28. The flow of electrons in a particular direction is called _____.
a. reduction c. electrolysis
b. oxidation d. an electrical current

