CONNECTICUT CHEMISTRY · FINAL EXAM · 50 QUESTIONS

Final Exam — Practice Test

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **Which term matches this description: a particle with no charge in a nucleus**

- A Electron
- B Atomic number
- C Neutron
- D Mass number

Understand It with Pulse | Flag a mistake

2 **Which term matches this description: a bond formed by sharing electrons**

A Metallic bond

B Covalent bond

C Polar bond

D Hydrogen bond

Understand It with Pulse | Flag a mistake

3 **Which term matches this description: the mass of one mole of a substance**

A Stoichiometry

B Molar mass

C Limiting reactant

D Excess reactant

Understand It with Pulse | Flag a mistake

4 **Which term matches this description: pressure times volume is constant at fixed temperature**

- A Charles law
- B Boyle law
- C Ideal gas
- D Kinetic theory

Understand It with Pulse | Flag a mistake

5 **Which term matches this description: an element that is a poor conductor**

- A Metalloid
- B Group
- C Nonmetal
- D Period

Understand It with Pulse | Flag a mistake

6 **Which term matches this description: a weak attraction involving hydrogen and a very electronegative atom**

- A Hydrogen bond
- B Chemical reaction
- C Reactant
- D Product

Understand It with Pulse | Flag a mistake

7 **Which term matches this description: actual yield divided by theoretical yield times 100**

- A Theoretical yield
- B Percent yield
- C Actual yield
- D Balanced equation

Understand It with Pulse | Flag a mistake

8 **Which term matches this description: a measure of average kinetic energy**

- A Absolute zero
- B Temperature
- C Equilibrium
- D Le Chatelier principle

Understand It with Pulse | Flag a mistake

9 **Which term matches this description: an atom or group with a net electric charge**

- A Element
- B Compound
- C Mixture
- D Ion

Understand It with Pulse | Flag a mistake

10 **Which term matches this description: a substance formed in a reaction**

A Synthesis reaction

B Decomposition reaction

C Single replacement

D Product

Understand It with Pulse | Flag a mistake

11 **Which term matches this description: an equation with equal atoms on both sides**

A Balanced equation

B Coefficient

C Solution

D Solute

Understand It with Pulse | Flag a mistake

12 **Which term matches this description: a system shifting to counter a change**

A Le Chatelier principle

B Entropy

C Enthalpy

D Spontaneous process

Understand It with Pulse | Flag a mistake

13 **Which term matches this description: a combination of substances not chemically combined**

A Molecule

B Periodic table

C Mixture

D Metal

Understand It with Pulse | Flag a mistake

14 **Which term matches this description: a reaction where one element replaces another**

A Double replacement

B Combustion

C Single replacement

D Catalyst

Understand It with Pulse | Flag a mistake

15 **Which term matches this description: the substance dissolved in a solution**

A Solvent

B Concentration

C Molarity

D Solute

Understand It with Pulse | Flag a mistake

16 **Which term matches this description: a process occurring without outside energy input**

A Endothermic process

B Exothermic process

C Vapor pressure

D Spontaneous process

Understand It with Pulse | Flag a mistake

17 **Which term matches this description: an atom with the same protons but different neutrons**

A Ion

B Element

C Isotope

D Compound

Understand It with Pulse | Flag a mistake

18 **Which term matches this description: a substance speeding a reaction without being used up**

A Activation energy

B Catalyst

C Exothermic reaction

D Endothermic reaction

Understand It with Pulse | Flag a mistake

19 **Which term matches this description: adding solvent to lower concentration**

A Acid

B Base

C Neutralization

D Dilution

Understand It with Pulse | Flag a mistake

20 **Which term matches this description: the temperature where vapor pressure equals outside pressure**

A Melting point

B Phase change

C Sublimation

D Boiling point

Understand It with Pulse | Flag a mistake

21 **Which term matches this description: a column of the periodic table**

A Group

B Period

C Valence electron

D Noble gas

Understand It with Pulse | Flag a mistake

22 **Which term matches this description: a reaction absorbing energy**

- A Endothermic reaction
- B Precipitate
- C Oxidation
- D Reduction

Understand It with Pulse | Flag a mistake

23 **Which term matches this description: an acid base reaction forming salt and water**

- A pH
- B Mole
- C Neutralization
- D Molar mass

Understand It with Pulse | Flag a mistake

24 **Which term matches this description: a change directly from solid to gas**

A Condensation

B Pressure

C Sublimation

D Boyle law

Understand It with Pulse | Flag a mistake

25 **Which statement about Atom is correct**

A the smallest unit of an element

B a positively charged particle in a nucleus

C a particle with no charge in a nucleus

D a negatively charged particle around a nucleus

Understand It with Pulse | Flag a mistake

26 **Which statement about Ionic bond is correct**

A a bond formed by transfer of electrons

B a bond formed by sharing electrons

C a bond among metal atoms with free electrons

D a bond with unequal sharing of electrons

Understand It with Pulse | Flag a mistake

27 **Which statement about Molar mass is correct**

A using mole ratios to calculate reaction quantities

B the mass of one mole of a substance

C the reactant used up first in a reaction

D a reactant remaining after a reaction

Understand It with Pulse | Flag a mistake

28 **Which statement about Boyle law is correct**

A volume over temperature is constant at fixed pressure

B pressure times volume is constant at fixed temperature

C a gas following the gas laws exactly

D matter as particles in constant motion

Understand It with Pulse | Flag a mistake

29 **Which statement about Electron is correct**

A the number of protons in an atom

B the total number of protons and neutrons

C an atom with the same protons but different neutrons

D a negatively charged particle around a nucleus

Understand It with Pulse | Flag a mistake

30 **Which statement about Polar bond is correct**

A a weak attraction involving hydrogen and a very electronegative atom

B a process forming new substances

C a starting substance in a reaction

D a bond with unequal sharing of electrons

Understand It with Pulse | Flag a mistake

31 **Which statement about Percent yield is correct**

A the maximum product possible from given reactants

B actual yield divided by theoretical yield times 100

C the product actually obtained in a reaction

D an equation with equal atoms on both sides

Understand It with Pulse | Flag a mistake

32 **Which statement about Temperature is correct**

A the lowest possible temperature

B a measure of average kinetic energy

C a state where forward and reverse rates are equal

D a system shifting to counter a change

Understand It with Pulse | Flag a mistake

33 **Which statement about Isotope is correct**

A an atom or group with a net electric charge

B a pure substance of only one kind of atom

C an atom with the same protons but different neutrons

D a substance of two or more elements chemically combined

Understand It with Pulse | Flag a mistake

34 **Which statement about Reactant is correct**

A a substance formed in a reaction

B a reaction combining substances into one product

C a starting substance in a reaction

D a reaction breaking one substance into simpler ones

Understand It with Pulse | Flag a mistake

35 **Which statement about Balanced equation is correct**

A an equation with equal atoms on both sides

B a number in front of a formula in an equation

C a uniform mixture of solute and solvent

D the substance dissolved in a solution

Understand It with Pulse | Flag a mistake

36 **Which statement about Le Chatelier principle is correct**

A a system shifting to counter a change

B a measure of disorder in a system

C heat content of a system at constant pressure

D a process occurring without outside energy input

Understand It with Pulse | Flag a mistake

37 **Which term matches this description: an electron in the outermost energy level**

A Noble gas

B Atom

C Valence electron

D Proton

Understand It with Pulse | Flag a mistake

38 **Which statement about Decomposition reaction is correct**

- A a reaction where one element replaces another
- B a reaction breaking one substance into simpler ones
- C a reaction where two compounds exchange partners
- D a reaction with oxygen producing heat and light

Understand It with Pulse | Flag a mistake

39 **Which statement about Solute is correct**

- A the substance doing the dissolving
- B the amount of solute per amount of solution
- C moles of solute per liter of solution
- D the substance dissolved in a solution

Understand It with Pulse | Flag a mistake

40 **Which statement about Spontaneous process is correct**

A a process absorbing heat

B a process releasing heat

C pressure from vapor above a liquid

D a process occurring without outside energy input

Understand It with Pulse | Flag a mistake

41 **Which statement about Periodic table is correct**

A a table organizing elements by properties

B an element that is shiny and conducts heat and electricity

C an element that is a poor conductor

D an element with properties of metals and nonmetals

Understand It with Pulse | Flag a mistake

42 **Which statement about Combustion is correct**

A a reaction with oxygen producing heat and light

B a substance speeding a reaction without being used up

C the minimum energy needed to start a reaction

D a reaction releasing energy

Understand It with Pulse | Flag a mistake

43 **A solution has 2 moles of solute in 1 liter. Its molarity is**

ANSWER _____

Understand It with Pulse | Flag a mistake

44 **A gas at constant temperature has pressure doubled. Its volume becomes, in a simplified model starting at 10 liters, the new volume is**

ANSWER _____

Understand It with Pulse | Flag a mistake

45 **An atom has atomic number 6 and mass number 12. Its number of neutrons is**

ANSWER _____

Understand It with Pulse | Flag a mistake

46 **A synthesis reaction combines 2 grams of hydrogen with 16 grams of oxygen in a simplified count. The total mass of reactants is**

ANSWER _____

Understand It with Pulse | Flag a mistake

47 **A balanced equation uses 2 moles of hydrogen per 1 mole of oxygen. For 4 moles of hydrogen, the moles of oxygen needed are**

ANSWER _____

Understand It with Pulse | Flag a mistake

48 **A reaction releases 100 joules. The heat released in 3 identical reactions is**

ANSWER _____

Understand It with Pulse | Flag a mistake

49 **An isotope has 8 protons and 10 neutrons. Its mass number is**

ANSWER _____

Understand It with Pulse | Flag a mistake

50 **Methane has 4 hydrogen atoms per molecule. In 3 molecules, the number of hydrogen atoms is**

ANSWER _____

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	C	**18.**	B	**35.**	A
2.	B	**19.**	D	**36.**	A
3.	B	**20.**	D	**37.**	C
4.	B	**21.**	A	**38.**	B
5.	C	**22.**	A	**39.**	D
6.	A	**23.**	C	**40.**	D
7.	B	**24.**	C	**41.**	A
8.	B	**25.**	A	**42.**	A
9.	D	**26.**	A	**43.**	2
10.	D	**27.**	B	**44.**	5
11.	A	**28.**	B	**45.**	6
12.	A	**29.**	D	**46.**	18
13.	C	**30.**	D	**47.**	2
14.	C	**31.**	B	**48.**	300
15.	D	**32.**	B	**49.**	18
16.	D	**33.**	C	**50.**	12
17.	C	**34.**	C		

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