NOVA SCOTIA CHEMISTRY 11 · FINAL EXAM

Final Exam — Practice Test

Nova Scotia Chemistry 11 • 50 questions

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 **A sample has mass 20 grams and molar mass 10 grams per mole. The amount, in moles, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

2 **An atom has atomic number 12 and mass number 17. The number of neutrons is**

ANSWER _____

Understand It with Pulse | Flag a mistake

3 **An alkane has 3 carbon atoms. The number of hydrogen atoms is**

ANSWER _____

Understand It with Pulse | Flag a mistake

4 **A reaction has theoretical yield 80 grams and actual yield 60 grams. The percent yield is**

ANSWER _____

Understand It with Pulse | Flag a mistake

5 **An atom has 6 protons and 6 neutrons. Its mass number is**

ANSWER _____

Understand It with Pulse | Flag a mistake

6 **A carboxylic acid functional group is**

A hydroxyl

B amino

C carboxyl

D ester only

Understand It with Pulse | Flag a mistake

7 **A compound has total mass 100 grams and one element contributes 40 grams. The percent of that element is**

ANSWER _____

Understand It with Pulse | Flag a mistake

8 **An ion has 17 protons and 18 electrons. Its charge is**

ANSWER _____

Understand It with Pulse | Flag a mistake

9 **A substitution reaction on an alkane**

A adds a double bond

B removes carbon

C replaces an atom with another atom or group

D forms an acid only

Understand It with Pulse | Flag a mistake

10 **A hydrated compound formula includes water molecules shown after a**

- A plus sign only
- B comma
- C bracket only
- D dot

Understand It with Pulse | Flag a mistake

11 **An ionic bond forms mainly by**

- A sharing electrons equally
- B pooling electrons in metals only
- C transfer of electrons
- D overlapping orbitals only

Understand It with Pulse | Flag a mistake

12 **An alcohol functional group is**

A carboxyl

B hydroxyl

C amino

D carbonyl only

Understand It with Pulse | Flag a mistake

13 **An empirical formula shows the**

A actual number of atoms always

B simplest whole number ratio of atoms

C mass in grams

D charge of ions

Understand It with Pulse | Flag a mistake

14 **A polar molecule has an uneven distribution of**

A charge

B mass

C size

D colour

Understand It with Pulse | Flag a mistake

15 **An alkene contains at least one**

A carbon-carbon triple bond

B carbon-carbon double bond

C oxygen atom

D ring only

Understand It with Pulse | Flag a mistake

16 **Molar mass units are**

A moles per gram

B litres per mole

C grams per litre only

D grams per mole

Understand It with Pulse | Flag a mistake

17 **London dispersion forces are present between**

A ionic compounds only

B metals only

C all molecules

D polar molecules only

Understand It with Pulse | Flag a mistake

18 **An alkyne with one triple bond has 4 carbon atoms. The number of hydrogen atoms is**

ANSWER _____

Understand It with Pulse | Flag a mistake

19 **Molar mass is the mass of**

A one atom only

B one mole of a substance

C one litre of gas

D one molecule only

Understand It with Pulse | Flag a mistake

20 **Carbon dioxide has a shape described as**

A bent

B linear

C tetrahedral

D pyramidal

Understand It with Pulse | Flag a mistake

21 **Complete combustion of a hydrocarbon in oxygen produces**

A carbon dioxide and water

B carbon monoxide only

C hydrogen only

D oxygen only

Understand It with Pulse | Flag a mistake

22 **One mole of any substance contains about**

- A 6.02×10^{23} particles
- B 100 particles
- C 1000 particles
- D 1 particle

Understand It with Pulse | Flag a mistake

23 **Ionic compounds usually have melting points that are**

- A very low
- B zero
- C variable only
- D high

Understand It with Pulse | Flag a mistake

24 **Fractional distillation separates hydrocarbons by**

A colour

B mass only

C density only

D boiling point

Understand It with Pulse | Flag a mistake

25 **A sample has 3 moles and molar mass 40 grams per mole. The mass, in grams, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

26 **Atomic radius generally decreases across a period because electrons are pulled**

A away from the nucleus

B into new shells

C closer to the nucleus

D out of atoms

Understand It with Pulse | Flag a mistake

27 **An alkene with one double bond has 5 carbon atoms. The number of hydrogen atoms is**

ANSWER _____

Understand It with Pulse | Flag a mistake

28 **A balanced equation shows 3 moles of reactant making 2 moles of product. Starting with 6 moles of reactant, the product made, in moles, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

29 **A halogen gains one electron to form an ion with charge**

A 1 minus

B 1 plus

C 2 minus

D 2 plus

Understand It with Pulse | Flag a mistake

30 **An alkane has 10 carbon atoms. The number of hydrogen atoms is**

ANSWER _____

Understand It with Pulse | Flag a mistake

31 **A sample has 4 moles and molar mass 17 grams per mole. The mass, in grams, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

32 The octet rule describes atoms tending to gain a full outer shell of

- **A** 2 electrons always
- **B** 18 electrons
- **C** 8 electrons
- **D** 4 electrons

Understand It with Pulse | Flag a mistake

33 An alkane has 8 carbon atoms. The number of hydrogen atoms in the alkane is

ANSWER _____

Understand It with Pulse | Flag a mistake

34 A sample has mass 100 grams and molar mass 25 grams per mole. The amount, in moles, is

ANSWER _____

Understand It with Pulse | Flag a mistake

35 **An ion has 9 protons and 10 electrons. Its charge is**

ANSWER _____

Understand It with Pulse | Flag a mistake

36 **The name butane refers to an alkane with**

A three carbon atoms

B five carbon atoms

C four carbon atoms

D two carbon atoms

Understand It with Pulse | Flag a mistake

37 **A sample has mass 48 grams and molar mass 12 grams per mole. The amount, in moles, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

38 **A sample has 20 protons in total from atoms each with 10 protons. The atoms number**

ANSWER _____

Understand It with Pulse | Flag a mistake

39 **The name hexane refers to an alkane with**

A five carbon atoms

B six carbon atoms

C seven carbon atoms

D four carbon atoms

Understand It with Pulse | Flag a mistake

40 **A sample has 6 moles and molar mass 12 grams per mole. The mass, in grams, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

41 **An anion is formed when an atom**

A loses electrons

B gains electrons

C loses protons

D gains protons

Understand It with Pulse | Flag a mistake

42 **The name pentane refers to an alkane with**

A five carbon atoms

B four carbon atoms

C six carbon atoms

D three carbon atoms

Understand It with Pulse | Flag a mistake

43 **Stoichiometry uses the mole ratio from a**

A word list

B balanced equation

C periodic table only

D graph only

Understand It with Pulse | Flag a mistake

44 **A nonpolar molecule has bonds that are**

A nonpolar or symmetrically arranged

B always ionic

C always double

D never covalent

Understand It with Pulse | Flag a mistake

45 **The prefix pent indicates**

A four carbon atoms

B six carbon atoms

C three carbon atoms

D five carbon atoms

Understand It with Pulse | Flag a mistake

46 **The limiting reactant is the reactant that**

A is in excess

B never reacts

C is a product

D runs out first

Understand It with Pulse | Flag a mistake

47 **Diamond is hard because carbon atoms form a strong**

A ionic lattice

B metallic bond

C covalent network

D hydrogen bond

Understand It with Pulse | Flag a mistake

48 **The suffix ene indicates an**

A alkane

B alkene

C alkyne

D acid

Understand It with Pulse | Flag a mistake

49 **A sample has 3 moles and molar mass 44 grams per mole. The mass, in grams, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

50 **Solubility in water is favoured when a substance is**

A polar

B nonpolar only

C a gas only

D a metal only

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	2	**18.**	6	**35.**	-1
2.	5	**19.**	B	**36.**	C
3.	8	**20.**	B	**37.**	4
4.	75	**21.**	A	**38.**	2
5.	12	**22.**	A	**39.**	B
6.	C	**23.**	D	**40.**	72
7.	40	**24.**	D	**41.**	B
8.	-1	**25.**	120	**42.**	A
9.	C	**26.**	C	**43.**	B
10.	D	**27.**	10	**44.**	A
11.	C	**28.**	4	**45.**	D
12.	B	**29.**	A	**46.**	D
13.	B	**30.**	22	**47.**	C
14.	A	**31.**	68	**48.**	B
15.	B	**32.**	C	**49.**	132
16.	D	**33.**	18	**50.**	A
17.	C	**34.**	4		

© 2026 Brett Robbins. All Rights Reserved.