

CHEMISTRY SPRING 2022 STUDY GUIDE

* Required

1. Email *

2. Write your first and last name *

2 points

3. Give 2 examples of Chemistry reactions in everyday life. Include a description of the chemistry happening in the reactions you choose. 4 points

4. is this a chemical change or a physical change. Choose one and give an explanation. *

4 points



5. Describe in detail the observations you can make for the procedure shown below: * 6 points



6. The metal on a car rusts, physical or chemical change and explain why * 4 points

7. table salt dissolves in water, physical or chemical change and explain why. is it possible to get the salt back? * 4 points

8. How do you know egg whites have "reacted" when you cook them? * 3 points

9. Write 3 signs that are evidence a chemical reaction may be occurring * 4 points

10. Why is making tea or coffee not a chemical reaction? * 3 points

11. Explain how this life hack works: placing bananas in a bag with tomatoes can help them ripen faster * 3 points

12. How does placing a piece of bread in a bag with cookies help the cookies stay soft? * 3 points

13. Substances that interact to cause a chemical reaction are called? * 1 point

Mark only one oval.

- ☐ products
- ☐ substances
- ☐ reactants
- ☐ catalyst

14. Substance produced by a chemical reaction? * 1 point

Mark only one oval.

- ☐ products
- ☐ substances
- ☐ reactants
- ☐ catalyst

15. What happens to bonds during a chemical reaction? * 3 points

16. What happens to atoms during a chemical reaction? * 3 points

17. What type of reaction is this? $\text{PbCl}_2 + \text{AgNO}_3 \rightarrow \text{Pb}(\text{NO}_3)_2 + \text{AgCl}$ * 1 point

18. What type of reaction is this? $\text{Zn} + \text{S} \rightarrow \text{ZnS}$ * 1 point

19. What type of reaction is this? $\text{KBr} + \text{Cl}_2 \rightarrow \text{KCl} + \text{Br}_2$ * 1 point

20. What type of reaction is this? $\text{C}_4\text{H}_{12} + \text{O}_2 \rightarrow \text{CO}_2 + \text{H}_2\text{O}$ * 1 point

21. $\text{Ca}(\text{OH})_2 + \text{H}_3\text{PO}_4 \rightarrow$ * 1 point

Mark only one oval.

- ☐ $\text{CaH}_3 + \text{HPO}_4$
- ☐ $\text{Ca}_3(\text{PO}_4)_2 + \text{HOH}$
- ☐ $\text{Ca}(\text{PO}_4) + \text{H}_2\text{OH}$
- ☐ $\text{H}_3\text{PO}_4 + \text{Ca}(\text{OH})_2$
- ☐ synthesis

22. $K_2CO_3 + BaCl_2 \rightarrow$ *

1 point

Mark only one oval.

- ☐ $KCl + BaCO_3$
- ☐ $K_2CO_3 + BaCl_2$
- ☐ $CO_3K_2 + Cl_2Ba$
- ☐ $CO_3Ba + ClK$
- ☐ synthesis

23. $Cd_3(PO_4)_2 + (NH_4)_2S \rightarrow$ *

1 point

Mark only one oval.

- ☐ $3Cd_2PO_4 + 2NH_4S$
- ☐ $PO_4_3Cd + S_2NH_4$
- ☐ $CdS + (NH_4)_3PO_4$
- ☐ $NH_4Cd + SPO_4$
- ☐ synthesis

24. Write the word equations for this chemical reaction $AgNO_3 + KCl \rightarrow AgCl + KNO_3$ *

3 points

25. Write the word equations for this chemical reaction: $Na_2CO_3 + H_2SO_4 \rightarrow Na_2SO_4 + H_2CO_3$ *

3 points

26. Describe in words what is a single replacement reaction *

4 points

27. $\text{Ca} + \text{NaOH} \rightarrow$ *

2 points

Mark only one oval.

- ☐ $\text{OHCa} + \text{Na}$
- ☐ $\text{Ca(OH)}_2 + \text{Na}$
- ☐ $2\text{OHNa} + \text{Ca}$
- ☐ $\text{NaOH} + \text{Ca}$

28. $\text{MgI}_2 + \text{Cl}_2 \rightarrow$ *

2 points

Mark only one oval.

- ☐ $\text{ClMg} + \text{Cl}_2$
- ☐ $\text{MgI}_2 + \text{Cl}_2$
- ☐ $\text{MgMg} + \text{Cl}_2$
- ☐ $\text{MgCl}_2 + \text{I}_2$

29. Describe in words what is a decomposition reaction *

4 points

30. Describe an example of decomposition reaction we studied in class that occurs in the human body *

4 points

31. Describe in words what is a synthesis reaction *

4 points
