

(Frameworks Code)

Part A - Ionic Bonding: Complete the following questions in the space provided:

1. What is an ion? _____
2. What is an ionic bond? _____
3. How does an atom become a positive ion? _____
4. How does an atom become a negative ion? _____
5. How do ions form electrically neutral compounds? Give an example? _____
6. What characteristics do solid ionic compounds share? _____
7. How does the electrical conductivity of ionic compounds change when they are melted or dissolved in water? Why is this so? _____

Part B - Naming binary compounds: Using the rules found on page 117 of your textbook for binary compounds, name the following:

- | | |
|-----------------------------|--|
| 8. NaBr _____ | 14. Sn ₃ P ₄ _____ |
| 9. KCl _____ | 15. Cr ₂ S ₃ _____ |
| 10. AlN _____ | 16. Na ₂ S _____ |
| 11. BaF ₂ _____ | 17. AgCl _____ |
| 12. AlCl ₃ _____ | 18. FeBr ₃ _____ |
| 13. ZnS _____ | 19. Cu ₂ O _____ |

Part C: Use the chart answer the following questions

Ions and Their Charges			Ions and Their Charges		
Name	Charge	Symbol/Formula	Name	Charge	Symbol/Formula
Ammonium	1+	NH ₄ ⁺	Chloride	1-	Cl ⁻
Potassium	1+	K ⁺	Oxide	2-	O ²⁻
Calcium	2+	Ca ²⁺	Sulfide	2-	S ²⁻
Magnesium	2+	Mg ²⁺	Phosphate	3-	PO ₄ ³⁻

20. How many potassium ions are needed to balance the charge of one sulfide ion? Explain. _____
21. Predict the formula for calcium chloride: _____, & potassium phosphate _____
22. Which ions in the table are polyatomic ions? _____