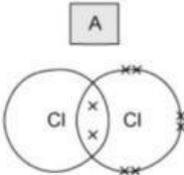
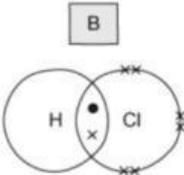
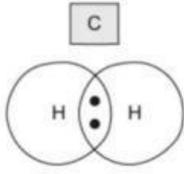
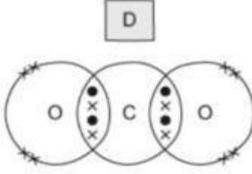
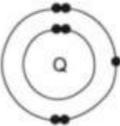


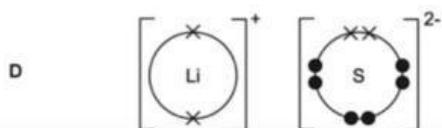
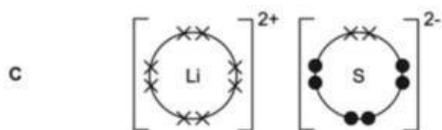
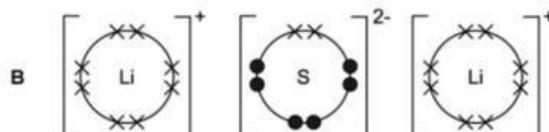
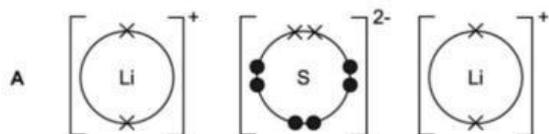
Name: _____

Class: _____

No	Questions	Answer
1	<p>Which of the following compounds are formed by covalent bonding?</p> <p>1 Potassium fluoride 2 Propane 3 Carbon dioxide 4 Lithium bromide</p> <p>A. 2 and 3 B. 2 and 4 C. 1, 2 and 3 D. 1 and 4</p>	
2	<p>Dot and cross diagrams for four covalent molecules are shown below.</p> <p>Which diagram is incorrect?</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>A</p>  </div> <div style="text-align: center;"> <p>B</p>  </div> </div> <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 20px;"> <div style="text-align: center;"> <p>C</p>  </div> <div style="text-align: center;"> <p>D</p>  </div> </div>	
3	<p>Atoms P and Q have electronic structures as shown in the diagram. They react together to form a covalent compound.</p> <div style="display: flex; justify-content: center; align-items: center; margin: 10px 0;"> <div style="text-align: center; margin-right: 20px;">  <p>P</p> </div> <div style="text-align: center;">  <p>Q</p> </div> </div> <p>What is the formula of the compound?</p> <p>A. P₂Q₃ B. P₃Q C. P₃Q₂ D. PQ₄</p>	

4	<p>Which statement about bonding is not correct?</p> <p>A. Covalent bonding involves non metal elements.</p> <p>B. Covalent bonding involves electron sharing.</p> <p>C. Covalent bonding involves electron transfer.</p> <p>D. Covalent bonding does not involve metal elements.</p>																					
5	<p>What change occurs to an atom when it forms a negative ion?</p> <p>A. It loses electrons.</p> <p>B. It gains protons.</p> <p>C. It gains electrons.</p> <p>D. It loses protons.</p>																					
6	<p>Lithium and chlorine react together to form lithium chloride. During formation, each lithium atom.....1..... one2..... which is completely3..... to the chlorine atom.</p> <p>What words correctly fill gaps 1, 2 and 3?</p> <table border="1" data-bbox="213 913 935 1137"> <thead> <tr> <th></th> <th>1</th> <th>2</th> <th>3</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>gains</td> <td>electron</td> <td>shared</td> </tr> <tr> <td>B</td> <td>loses</td> <td>electron</td> <td>transferred</td> </tr> <tr> <td>C</td> <td>gains</td> <td>proton</td> <td>transferred</td> </tr> <tr> <td>D</td> <td>loses</td> <td>proton</td> <td>shared</td> </tr> </tbody> </table>		1	2	3	A	gains	electron	shared	B	loses	electron	transferred	C	gains	proton	transferred	D	loses	proton	shared	
	1	2	3																			
A	gains	electron	shared																			
B	loses	electron	transferred																			
C	gains	proton	transferred																			
D	loses	proton	shared																			
7	<p>Which of the statements describes ionic bonding?</p> <p>A. Electrostatic attraction between atoms</p> <p>B. Electrostatic attraction between positively charged particles and delocalised electrons</p> <p>C. Electrostatic attraction between oppositely charged ions</p> <p>D. Electrostatic attraction between the nuclei of two atoms and a shared pair of electrons</p>																					
8	<p>Which row provides a correct description of the properties of metals?</p> <table border="1" data-bbox="213 1576 940 1839"> <thead> <tr> <th></th> <th>melting point</th> <th>boiling point</th> <th>conducts electricity</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>high</td> <td>low</td> <td></td> </tr> <tr> <td>B</td> <td>low</td> <td>high</td> <td>✓</td> </tr> <tr> <td>C</td> <td>low</td> <td>low</td> <td></td> </tr> <tr> <td>D</td> <td>high</td> <td>high</td> <td>✓</td> </tr> </tbody> </table>		melting point	boiling point	conducts electricity	A	high	low		B	low	high	✓	C	low	low		D	high	high	✓	
	melting point	boiling point	conducts electricity																			
A	high	low																				
B	low	high	✓																			
C	low	low																				
D	high	high	✓																			

9 Which of the following dot-and-cross diagrams shows the correct arrangement of electrons in lithium sulfide?



10 Which statement correctly describes the bonding in metals?

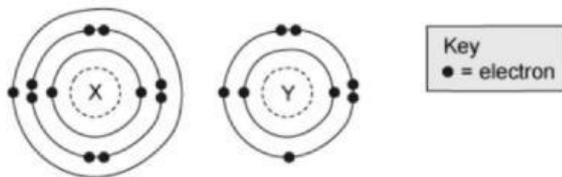
- A. A lattice of negative ions in a "sea of electrons".
- B. A lattice of positive ions in a "sea of electrons".
- C. A lattice of neutral atoms with delocalised electrons.
- D. A lattice of negative ions with delocalised electrons.

11 The table below shows four different substances.

Which substance does the type of bonding shown not match?

	Substance	Type of bonding present		
		Ionic	Covalent	Metallic
A	Fluorine		✓	
B	Potassium chloride	✓		
C	Beryllium		✓	
D	Sodium bromide	✓		

12 The electronic structures of atoms X and Y are shown.

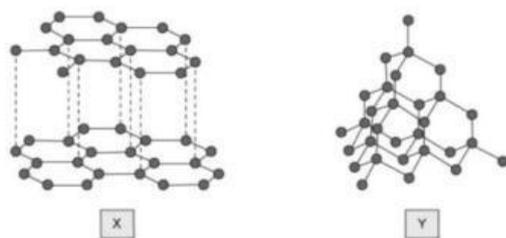


X and Y combine by ionic bonding.

What is the formula of the compound produced?

- A. X_2Y
- B. X_2Y_2
- C. X_2Y_4
- D. XY

13 The structures of two solids X and Y are shown below.



What are the correct uses of these structures?

	X	Y
A	industrial lubricating	glass cutters
B	industrial lubricating	industrial lubricating
C	glass cutters	industrial lubricating
D	glass cutters	glass cutters

14 Statements 1, 2 and 3 are about diamond and graphite.

- 1 They have atoms that form three equally strong bonds
- 2 They are both formed from the same element
- 3 They each conduct electricity

Which statement(s) is / are correct?

- A. 1 only
- B. 2 only
- C. 1 and 3
- D. 1 and 2