Structure and bonding

Unscramble the phrases in the table to make the correct definitions for the key terms listed in column A (phrases can be used once, more than once, or not at all). Then write out the definitions in full, in the spaces provided below the table.

|  |  |  |  |  |
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| **A** | **B** | **C** | **D** | **E** |
| An ionic bond  | are the relatively weak  | only one  | or more  | a metal and a non-metal. |
| A covalent bond |  | attractive and repulsive forces | type | chemical bonds. |
| A metallic bond | is a pure substance made of | between delocalised electrons and | that forms between | in a regular lattice. |
| An element | is a type of bond formed by atoms | between oppositely charged ions in a regular lattice | between | the atoms are in a fixed ratio. |
| A compound | is an electrostatic force of attraction | possible particle of an element; | the positive ions | of atom. |
| An atom | is two or more | two or more different elements | connected by | pairs of electrons. |
| A molecule | is the smallest  | atoms | whose atoms are joined by chemical bonds; | protons, neutrons and electrons. |
| Intermolecular forces |  | sharing one | atoms are made up of | molecules. |

An ionic bond \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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A covalent bond \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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A metallic bond \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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An element \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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A compound \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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An atom \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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A molecule \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Intermolecular forces \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Connection completion

Choose the letter from the table below which contains the correct row of connective words to complete these sentences.

When a metal and a non-metal react, the metal loses one or more electrons and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, becomes a positively charged ion. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, the non-metal gains one or more electrons to become a negatively charged ion. An ionic bond is formed \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the oppositely charged ions are held together by electrostatic attraction.

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| **A** | hence | So | despite |
| **B** | since | Despite this | therefore |
| **C** | as a result | Conversely | since |
| **D** | oppositely | Consequently | in accordance with |