



STRUCTURE & BONDING (C)

- 1 Give the formula and structure type of the following substances. (5)

Name	Formula	Structure type				
		Monatomic	Molecular	Giant covalent	Ionic	metallic
graphite						
calcium hydroxide						
potassium						
carbon monoxide						
aluminium nitrate						

- 2 The ammonium ion (NH_4^+) is formed when ammonia reacts with hydrogen ions. Name the type of bond formed when the ammonium ion is formed in this way and describe how it forms.

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(3)

- 3 Complete the table about the following molecules and ions. (6)

Molecule / ion	SO_2	NF_3	SF_6
Sketch of shape (including lone pairs)			
Name of shape			
Bond angles			
Does the molecule contain polar bonds?			
Is the molecule polar?			

- 4 Define electronegativity and explain why fluorine atoms are more electronegative than oxygen atoms

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(4)