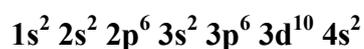


Marks
4

- Complete the following table. Give, as required, the formula, the systematic name, the oxidation number of the underlined atom and, where indicated, the principal ions present in a solution prepared by adding the substance to water.

FORMULA	SYSTEMATIC NAME	OXIDATION NUMBER	PRINCIPAL IONS IN WATER SOLUTION
<u>N</u> O ₂	nitrogen dioxide	+IV	N/A
<u>Pb</u> (CH ₃ CO ₂) ₂	lead(II) acetate	+II	Pb²⁺(aq), CH₃CO₂⁻(aq)
<u>Mg</u> (ClO ₄) ₂	magnesium perchlorate		Mg ²⁺ (aq); <u>Cl</u> O ₄ ⁻ (aq)

Write the full electron configuration of the As³⁺ ion.

**5**

- Draw the Lewis structures, showing all valence electrons for the following species. Indicate which of the species have contributing resonance structures.

HCO ₃ ⁻	COS	CN ⁻
Resonance: <u>YES</u> / NO	Resonance: YES / <u>NO</u>	Resonance: YES / <u>NO</u>