

Question	Part	Sub Part	Marking Guidance	Mark	Comments
8	(a)		Electronegativity increases  Proton number increases (increase in nuclear charge)  Same number of electron shells/levels  Attraction of <u>bond pair</u> to nucleus increases	1  1  1  1	Or same radius or Shielding of outer electrons remains the same Allow 'electrons in bond' instead of 'bond pair'
8	(b)		Big <u>difference</u> in electronegativity leads to ionic bonding, smaller covalent  Sodium oxide ionic lattice  Strong forces of attraction <u>between ions</u>  $P_4O_{10}$ covalent molecular  Weak (intermolecular) forces between molecules  melting point $Na_2O$ greater than for $P_4O_{10}$	1  1  1  1  1	Lose a mark if formula incorrect    Must have covalent and molecular (or molecules) Or weak vdW, or weak dipole-dipole between molecules Or argument relating mpt to strength of forces

