Question	Marking Guidance	Mark	Comments
3(a)(i)	<u>Ionic lattice / solid / giant ionic</u> Strong (electrostatic) forces/attraction between ions	1 1	CE = 0/2 if molecules / IMFs / atoms / metallic Allow strong ionic bonds for M2 only Allow lot of energy to break ionic bonds
3(a)(ii)	Molecular/molecules Weak dipole-dipole and/or van der Waals forces <u>between molecules</u>	1 1	 QoL Type of force must be mentioned
3(b)	P_4O_{10} bigger molecule/has larger surface area than SO_2 van der Waals forces <u>between molecules</u> stronger	1 1	Allow M_r of P_4O_{10} greater than for SO_2 If P_4O_{10} macromolecule/ionic, CE = 0/2 Allow stronger IMF
3(c)	$Na_2O + H_2O \rightarrow 2Na^+ + 2OH^-$ 14 $P_4O_{10} + 6H_2O \rightarrow 4H_3PO_4$ 0	1 1 1 1	Allow 2NaOH Allow 12-14 Allow ions Allow -1 to +2
3(d)	$6Na_2O + P_4O_{10} \rightarrow 4Na_3PO_4$	1	Allow ionic Allow correct formula of product with atoms in any order