

Question number	Answer	Notes	Marks
14 (a)	two protons labelled ; two neutrons labelled ;	ACCEPT: a proton and a neutron for 1 mark ACCEPT: correct labels inside circles	2
(b) (i)	Any <b>two</b> of: to avoid / reduce absorption / ionisation / loss of energy of alpha particles ; to avoid / reduce chance of collisions between air molecules and alpha particles ; to allow sufficient range for alpha particles / would stop in few cm of air / does not reach foil ;	ACCEPT: ideas of alpha particle absorption, collision and range expressed in other words  IGNORE: speed of alpha particles	2
(ii)	Any <b>two</b> of: electrostatic (force) ; repulsion ; between like charges ;	ACCEPT: electric (force) IGNORE: magnetic / poles	2