

Question number	Answer	Notes	Marks														
2 (a)	<p>all three correct ticks = 3 marks;;;</p> <p>two correct ticks = 2 marks;;</p> <p>one correct tick = 1 mark;</p> <table><thead><tr><th>Statement</th><th>Correct (✓)</th></tr></thead><tbody><tr><td>uranium-235 loses a proton to become uranium-236</td><td></td></tr><tr><td>uranium-235 absorbs a neutron to become uranium-236</td><td>✓</td></tr><tr><td>daughter cells are produced when uranium-236 splits</td><td></td></tr><tr><td>the nuclear energy store of uranium-236 increases when it splits</td><td></td></tr><tr><td>two or three neutrons are typically released when uranium-236 splits</td><td>✓</td></tr><tr><td>energy is transferred to the kinetic store of the fission products when uranium-236 splits</td><td>✓</td></tr></tbody></table>	Statement	Correct (✓)	uranium-235 loses a proton to become uranium-236		uranium-235 absorbs a neutron to become uranium-236	✓	daughter cells are produced when uranium-236 splits		the nuclear energy store of uranium-236 increases when it splits		two or three neutrons are typically released when uranium-236 splits	✓	energy is transferred to the kinetic store of the fission products when uranium-236 splits	✓	<p>-1 for 4 ticks</p> <p>-2 for 5 ticks</p> <p>0 marks if all ticked</p>	3
Statement	Correct (✓)																
uranium-235 loses a proton to become uranium-236																	
uranium-235 absorbs a neutron to become uranium-236	✓																
daughter cells are produced when uranium-236 splits																	
the nuclear energy store of uranium-236 increases when it splits																	
two or three neutrons are typically released when uranium-236 splits	✓																
energy is transferred to the kinetic store of the fission products when uranium-236 splits	✓																
(b)	neutron / n / neutrons;		1														
(c)	<p>B (a helium nucleus);</p> <p>A is incorrect because this describes gamma radiation</p> <p>C is incorrect because this describes beta radiation</p> <p>D is incorrect because this describes neutron radiation</p>		1														
(d)	beta (minus);	<p>accept <math>\beta</math>, <math>\beta^-</math></p> <p>reject beta plus</p>	1														

Total for Question 2 = 6 marks