

Qu No.		Extra Information	Marks
3.0			
Level 3:	Clear, coherent, logically structured answer linking the fusion of small elements into large elements with the energy and/or forces within stars. Both main sequence stars and supernovae included in answer. Examples given are correct. No errors in science.		5-6
Level 2:	Answer links elemental formation to fusion, with some correct detail and no major errors in science. Attempt to link fusion to energy and/or forces within stars. Likely to only reference main sequence stars or supernovae.		3-4
Level 1:	Answer links elemental formation to fusion. No link to energy or forces. Contains errors or major omissions.		1-2
Indicative content			
	Fusion In main sequence stars: Hydrogen to helium Elements up to iron formed in main sequence stars Gravitational forces cause high pressure and temperature at centre And/or GPE becomes KE Repulsive forces from nuclei overcome In supernovae explosions Bigger elements formed and scattered Ignore references to mass deficit and energy released. Ignore references to equilibrium of forces on star		

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4.1	<table border="1"> <thead> <tr> <th></th> <th>True</th> <th>False</th> </tr> </thead> <tbody> <tr> <td>The resultant force is due to air resistance with the upper atmosphere.</td> <td></td> <td>✓</td> </tr> <tr> <td>The speed of a satellite in a stable orbit changes.</td> <td></td> <td>✓</td> </tr> <tr> <td>The velocity of a satellite is different at different parts of its orbit.</td> <td>✓</td> <td></td> </tr> <tr> <td>The height of a satellite is the same as the radius of its orbit.</td> <td></td> <td>✓</td> </tr> </tbody> </table>		True	False	The resultant force is due to air resistance with the upper atmosphere.		✓	The speed of a satellite in a stable orbit changes.		✓	The velocity of a satellite is different at different parts of its orbit.	✓		The height of a satellite is the same as the radius of its orbit.		✓	2 marks for all ticks correct 1 mark for 3 ticks correct	2
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4.2	E		1															
4.3	3000 km	Allow 2500 – 3500	1															