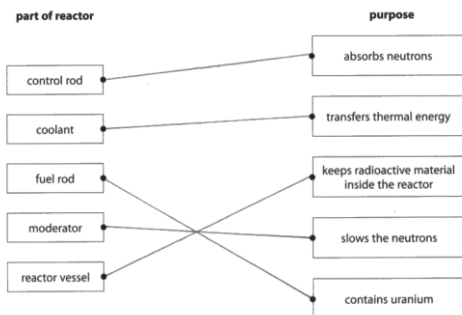


Question number	Answer	Notes	Marks
12 (a)	<p>5 correct lines score 4 marks;;; 4 or 3 correct lines score 3 marks;;; 2 correct lines score 2 marks;; 1 correct line scores 1 mark;</p> 		4
b	C neutrons;		1
c	<p>any four from:</p> <p>MP1. neutron absorbed by;</p> <p>MP2. uranium(-235) nucleus;</p> <p>MP3. causing it to split;</p> <p>MP4. into 2 daughter products / nuclei / isotopes;</p> <p>MP5. releasing further neutrons /energy;</p>	<p>only accept precise terminology allow hits/collides/eq</p> <p>allow named products</p>	4
d	<p>any three comparisons from (however expressed):</p> <p>MP1. decay is random but fission is not;</p> <p>MP2. fission induced by input particle but decay occurs without an input particle;</p> <p>MP3. fission produces 2 daughter nuclei but decay produces only 1;</p> <p>MP4. α or β are emitted from decay but not from fission;</p>		3