

Question 1

1(a)	atom(s) with the same number of protons(1) different numbers of neutrons (1)	2
1(b)	protons: 16 (1) neutrons: 20 (1) electrons: 18 (1)	3

Question 2

2(c)	electrons = 28 (1) neutrons = 34 (1)	2
------	-----------------------------------------	----------

Question 3

3(a)(ii)	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>12</td> <td>12</td> <td>12 (1)</td> </tr> <tr> <td>12</td> <td>13</td> <td>12 (1)</td> </tr> </table> <p>Mark by row</p>	12	12	12 (1)	12	13	12 (1)	2
12	12	12 (1)						
12	13	12 (1)						

Question 4

4(b)(i)	M1 different atoms of the same element with the same number of protons (1) M2 different numbers of neutrons (1)	2
---------	--------------------------------------------------------------------------------------------------------------------------------------------------------------	----------

4(b)(ii)	M1 $10 \times 20 + 11 \times 80$ (= 1080)(1) M2 $(1080 \div 100 =) 10.8(1)$	2
----------	--------------------------------------------------------------------------------------------------	----------

Question 5

5(c)(iii)	M1 $(6 \times 10) + (7 \times 90) (= 690) (1)$ M2 $690 / 100 = 6.9 (1)$	2
-----------	------------------------------------------------------------------------------------------	----------

Question 6

6(a)	M1 5p and 5e (1) M2 6n (1)	2
6(b)(i)	20%	1