

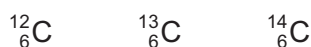
1 (a) Complete the table.

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particle	charge	relative mass
proton	+1	
neutron		1
electron		

[2]

(b) The following are isotopes of carbon.



(i) In terms of numbers of protons, neutrons and electrons, how are these **three** isotopes the same and how are they different?

They are the same because

.....

They are different because

.....

[3]

(ii) Why do all isotopes of carbon have the same chemical properties?

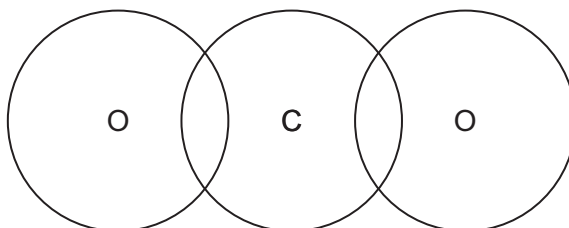
..... [1]

(c) Name **two** forms of the element carbon which have giant covalent structures.

..... and [1]

(d) Complete the diagram to show the electron arrangement in a carbon dioxide molecule. Show the outer shell electrons only.

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[2]