

- 7 (a) One of the results of the α -particle scattering experiment is that a very small minority of the α -particles are scattered through angles greater than 90° .

State what may be inferred about the structure of the atom from this result.

.....

.....

.....

.....[2]

- (b) A hadron has an overall charge of $+e$, where e is the elementary charge. The hadron contains three quarks. One of the quarks is a strange (s) quark.

- (i) State the charge, in terms of e , of the strange (s) quark.

charge = [1]

- (ii) The other two quarks in the hadron have the same charge as each other.

By considering charge, determine a possible type (flavour) of the other two quarks.
Explain your working.

.....

.....[2]

[Total: 5]