

- 7 (a) The names of four particles are listed below.

alpha beta-plus neutron proton

State the name(s) of the particle(s) in this list that:

- (i) are not fundamental

..... [1]

- (ii) do not experience an electric force when situated in an electric field

..... [1]

- (iii) has the largest ratio of charge to mass.

..... [1]

- (b) A hadron has a charge of $+e$ where e is the elementary charge. The hadron is composed of only two quarks. One of these quarks is an antidown (\bar{d}) quark. By considering charge, state and explain the name (flavour) of the other quark.

.....
..... [3]

[Total: 6]

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