

8 (a) Distinguish between an α -particle and a β^+ -particle.

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.....[3]

(b) State the equation that shows the decay of a particle in a nucleus that results in β^+ emission. All particles in the equation should be shown in the notation that is usually used for the representation of nuclides.

[2]

(c) (i) State the quark composition of

1. a proton,

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2. a neutron.

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[2]

(ii) the quark model to explain the charge on a proton.

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.....[1]

[Total: 8]