8 **(a)** An antiparticle equivalent of the neutron is called the antineutron. The quarks in the antineutron are the antiparticles of the quarks in a neutron.

The elementary charge is *e*.

In Table 8.1, state the flavour and charge of the three antiquarks that comprise the antineutron.

Table 8.1

flavour	charge / *e*

[3]

(b) In β^- decay, a neutron decays to form a proton.

Theory predicts that an antineutron should decay to form an antiproton. A particle and an antiparticle should also be observed.

Suggest the names of the particle and the antiparticle.

particle: .....

antiparticle: .....

[2]

[Total: 5]