

Section A

Answer **all** the questions in this section in the spaces provided.

- 1 (a) Make estimates of

- (i) the mass, in kg, of a wooden metre rule,

mass = kg [1]

- (ii) the volume, in cm^3 , of a tennis ball.

volume = cm^3 [1]

- (b) The energy E stored in an electrical component is given by

$$E = \frac{Q^2}{2C}$$

where Q is charge and C is a constant.

Use this equation to determine the SI base units of C .

SI base units of C = [2]

[Total: 4]