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

1 **(a)** State two SI base units other than kilogram, metre and second.

1. .....

2. .....
[1]

(b) Determine the SI base units of resistivity.

base units .....[3]

(c) (i) A wire of cross-sectional area 1.5 mm^2 and length 2.5 m has a resistance of 0.030 Ω. Calculate the resistivity of the material of the wire in nΩ m.

resistivity = ...nΩ m [3]

(ii) 1. State what is meant by *precision*.

.....

.....

2. Explain why the precision in the value of the resistivity is improved by using a micrometer screw gauge rather than a metre rule to measure the diameter of the wire.

.....

.....

.....

[2]

[Total: 9]

[Turn over