

**SMART EXAM RESOURCES**  
**9702 PHYSICS TOPIC QUESTIONS**  
**TOPIC: PHYSICAL QUANTITIES AND UNITS**  
**SUB-TOPIC: ERRORS AND UNCERTAINTIES**  
**SUB-SUB-TOPIC: EXAMPLES OF RANDOM AND SYSTEMATIC ERRORS**

- 1** (a) An analogue voltmeter is used to take measurements of a constant potential difference across a resistor.

For these measurements, describe **one** example of

- (i) a random error.

.....  
.....[1]

### Mark Scheme:

reading scale from different angles or wrongly interpolating between scale readings/divisions	<b>B1</b>
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- 2** (a) An analogue voltmeter is used to take measurements of a constant potential difference across a resistor.

For these measurements, describe **one** example of

- (i) a systematic error,

.....  
.....[1]

**MARKING SCHEME:**

(a)(i)	zero error or wrongly calibrated scale	<b>B1</b>
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