**232/3**

**PHYSICS PAPER 3**

**PRACTICAL CONFIDENTIAL**

**SEPTEMBER 2021**

**Instructions**

Each candidate will require the following:

**Question one**

* A metre rule
* 100 ml beaker
* About 100 ml clean water
* A stand, boss and clamp
* A stop watch
* A screen
* A measuring cylinder (100 ml)
* A micrometer screw gauge (to be shared if necessary)
* A Vernier calliper (to be shared if necessary)
* A glass tube of external diameter 6 mm and length 10 cm
* A nichrome wire labelled **M** approximately 65 cm long and diameter 0.35 mm **should be provided for each candidate.**
* Some sellotape (5 cm long)
* One 50 g mass
* One 40 g (or two 20 g masses) (any combination to give 40 g)
* A lighting circuit connected as shown below, ready for the candidate to switch on

**Circuit**

**Question Two**

* A nichrome wire labelled **L** of length 100 cm and diameter 0.30 mm mounted on a millimeter scale
* Six connecting wires at least four with crocodile clips
* An ammeter (range 0 – 0.1 A)
* A voltmeter (range 0 – 3 V)
* Two new dry cells (size D)
* A cell holder
* A switch