

**CONFIDENTIAL**

**232/3  
Inst. Sch.**

**— PHYSICS —  
(PRACTICAL)**

**Paper 3**

**Apr. 2021**



### INSTRUCTIONS TO SCHOOLS

1. The information contained in this paper is to enable the head of the school and the teacher in charge of Physics to make adequate preparations for this year's Physics practical examination. **No one else** should have access to this paper or acquire knowledge of its contents. Great care **must** be taken to ensure that the information herein does **not** reach the candidates either directly or indirectly.
2. The apparatus required by each candidate for the Physics practical examination are set out on page 2. It is expected that the ordinary apparatus of a Physics laboratory will be available.
3. The **Physics teacher** should note that it is his/her responsibility to ensure that each apparatus acquired for this examination are per the specifications given.
4. The question paper should **not** be opened in advance.
5. The **Physics teacher** is **not** expected to perform the experiments.

**NB:**

- *The Physics teacher must ensure that the laboratory is set up a day before the date of the examination.*
- *Any use of apparatus other than the ones specified may lead to candidates being penalised.*
- *The requirements for each question should not be written on the chalkboard on the day of the examination.*

These instructions consist of 2 printed pages.



Each candidate will require the following:

### Question 1

- (i) Two new size D (1.5 V) dry cells in a cell holder
- (ii) A switch
- (iii) A micrometer screw gauge (*may be shared*)
- (iv) A nichrome wire of diameter  $0.29 \text{ mm} \pm 0.01 \text{ mm}$  and length approximately 102 cm mounted on a one metre long millimetre scale
- (v) A voltmeter of range 0 – 3 V or 0 – 5 V
- (vi) An ammeter of range 0 – 1 A
- (vii) A jockey
- (viii) Five connecting wires with a crocodile clip on one end (or on both ends)

### Question 2

- (i) A metre rule
- (ii) A biconvex lens of focal length 16 cm ( $\pm 1 \text{ cm}$ )
- (iii) A lens holder
- (iv) A white screen
- (v) A stand, a boss and a clamp
- (vi) A half metre rule
- (vii) A stop watch
- (viii) Some plasticine
- (ix) One piece of plastic pipe (PVC) of diameter  $3.4 \text{ cm} \pm 0.1 \text{ cm}$  and length approximately 7 cm labelled **A**
- (x) One piece of plastic pipe (PVC) of diameter  $4.3 \text{ cm} \pm 0.1 \text{ cm}$  and length approximately 7 cm labelled **B**
- (xi) One piece of plastic pipe (PVC) of diameter  $5.7 \text{ cm} \pm 0.1 \text{ cm}$  and length approximately 7 cm labelled **C**
- (xii) A vernier callipers (to be shared)
- (xiii) A source of light ready for the candidate to switch on. This should consist of one bulb in a bulb holder, two cells in a cell holder and a switch connected by wires

**THIS IS THE LAST PRINTED PAGE.**

