

**CHEMISTRY  
PRACTICAL  
PAPER 3**

*This document must not be seen by the candidates whatsoever*

**CONFIDENTIAL INSTRUCTIONS TO SCHOOLS:**

The information contained in this paper is to enable the head of the school and the teacher in charge of chemistry to make adequate preparations for this year's chemistry practical exam. **NO ONE ELSE** should have access to this paper or acquire knowledge of its content. Great care **MUST** be taken to ensure that the information herein does not reach the candidates either directly or indirectly. The teacher in charge of chemistry should **NOT** perform any of the experiments in the same room as the candidates nor make results of the experiments available to the candidates or give any other information related to the experiments to candidates. Doing so will constitute an examination irregularity which is punishable.

*In Addition to the apparatus and reagents found in a chemistry laboratory each candidate will require the following:-*

- 1) About 100cm<sup>3</sup> of solution **R**
- 2) 500ml distilled water
- 3) 2 boiling tubes
- 4) Six test tubes
- 5) 250cm<sup>3</sup> volumetric flask
- 6) 2 Labels
- 7) 50cm<sup>3</sup> burette
- 8) Pipette filler
- 9) Pipette
- 10) 250cm<sup>3</sup> conical flask
- 11) 1.8g of Solid **T**, accurately weighed
- 12) 2.3g of Solid **N** accurately weighed and placed in a boiling tube
- 13) -10 °C to 110<sup>0</sup>C Thermometer
- 14) 100cm<sup>3</sup> beaker
- 15) About 60cm<sup>3</sup> of solution **Q**
- 16) About 60cm<sup>3</sup> of solution **L**
- 17) About 1 g of solid **M** (its highly deliquescent and should be supplied in the morning of exams)
- 18) About 1g of solid **W**
- 19) metallic spatula
- 20) pH chart
- 21) 50 / 100cm<sup>3</sup> measuring cylinder
- 22) Test tube holder

**Access to:**

- 2M sodium hydroxide.
- Universal indicator
- 2M Hydrochloric acid.
- 2M ammonia solution
- Lead (ii) Nitrate
- Source of heat
- Acidified potassium dichromate (vi)

*Note: The teacher in charge should complete tables I, II, III as per question paper*

**Preparations**

- a. Solution **L** is 0.7M NaOH.
- b. Solution **Q** is 0.36M oxalic acid
- c. Solution **N** is oxalic acid
- d. Solution **T** is oxalic acid
- e. Solution **R** is prepared by dissolving 4.74g of potassium manganate (vii) in 700cm<sup>3</sup> of 1M sulphuric (vi) acid then topping it up to 1 litre using distilled water.
- f. Solids **M** and **W** will be supplied by NJEP