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**CHEMISTRY (CONFIDENTIAL)  
JULY/AUGUST 2011**

## **NANDI EAST, NANDI SOUTH AND TINDIRET DISTRICTS JOINT EXAMINATION 2011**

### **INSTRUCTION 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 preparation for this year's Chemistry 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**. The teacher in charge of Chemistry should **NOT** perform any of the experiment in the same room as the candidates nor make the results of the experiment available to the candidates or give any information related to the experiments to the candidates. Doing so will constitute an examination irregularity which is punishable.

### **REQUIREMENTS FOR CANDIDATES:**

Each candidate should be provided with the following:

1. 1 burette (0-50ml)
2. 3 conical flasks (250-ml)
3. 1 pipette (25ml)
4. 100cm<sup>3</sup> of solution A.
5. 80cm<sup>3</sup> of solution B.
6. 140cm<sup>3</sup> of solution C
7. 10ml measuring cylinder.
8. 50ml measuring cylinder.
9. 1 thermometer (-10 to 110°C)
10. Stopwatch.
11. 6 test tubes on a test tube rack.
12. 1 boiling tube.
13. Distilled water in a wash bottle.
14. Metallic spatula.
15. Universal indicator solution with a P<sup>H</sup> chart.
16. About 1g of solid F.
17. About 1g of solid G.
18. Blue and red litmus paper.

**CANDIDATES SHOULD HAVE ACCESS TO:**

1. Bunsen Burner (source of heat).
2. 2M NaOH<sub>(aq)</sub> with a dropper.
3. 2M Pb(NO<sub>3</sub>)<sub>2(aq)</sub> with a dropper
4. 2M HCl<sub>(aq)</sub> with a dropper.
5. 2M acidified KMnO<sub>4(aq)</sub> with a dropper.
6. Bromine water.

**NOTES:**

Solution B - 0.02M acidified KMnO<sub>4(aq)</sub>.

Solution A - Prepared by dissolving 8.5g of (FeSO<sub>4</sub>. (NH<sub>4</sub>)<sub>2</sub> SO<sub>4</sub>. 6H<sub>2</sub>O) in 50cm<sup>3</sup> of distilled water and making it to 250cm<sup>3</sup> in a volumetric flask.

Solution C - Prepared by dissolving 10.2g of hydrated ethane dioic acid C<sub>2</sub>H<sub>2</sub>O<sub>4</sub> . 2H<sub>2</sub>O (Oxalic acid) into 100cm<sup>3</sup> and then transfer it in 250ml volumetric flask and made upto the 250ml mark.

Solid F - Ferrous ammonium sulphate.

Solid G - Maleic acid.

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**PHYSICS (CONFIDENTIAL)  
JULY/AUGUST 2011**

## **NANDI EAST, NANDI SOUTH AND TINDIRET DISTRICTS JOINT EXAMINATION 2011**

Question 1:

Each candidate requires:

- One metre rule (preferably 0.54cm thickness).
- One retort stand, clamp and boss.
- One pointer/drawing pin.
- One half metre rule.
- Two 1kg masses (or suitable combinations).
- Two pieces of thread about 30cm long.
- Two knife edges (at least 25cm above bench).
- One 100g mass.
- One piece of cello tape (5cm long) or plasticize.

Question 2:

Each candidate requires:

- Two dry cells (D) & cell holder.
- One ammeter (0-3A).
- One voltmeter (0-5V).
- Eight connecting wires each with a crocodile clip at one end.
- Six 10ohm carbon resistors.
- A switch (optional).
- One concave mirror of focal length = 15cm.
- One white screen labeled S.
- One candle.
- One mirror holder.
- One half metre rule or 1m rule.

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**BIOLOGY (CONFIDENTIAL)**  
**JULY/AUGUST 2011**

**NANDI EAST, NANDI SOUTH AND TINDIRET  
DISTRICTS JOINT EXAMINATION 2011**

- L<sub>1</sub> - Starch solution.
- L<sub>2</sub> - Diastase.
- L<sub>3</sub> - Boiled diastase
- 3 - Test tubes
- 3 - Labels
- Thermometer.
- Water bath.
- White tile.
- Jacaranda flower (Specimen V)
- Hand lens.
- Scalpel.
- Grasshopper (Specimen W).
- Petri-dish.
- Water.
- Means of timing/clock.

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**(CLOTHING CONSTRUCTION)**  
**CONFIDENTIAL**

## **NANDI EAST, NANDI SOUTH AND TINDIRET DISTRICTS JOINT EXAMINATION 2011**

Schools are required to provide the following items:

1. Plain cotton jinja or calico 91.4cm (36") by 65cm (25")
2. Mercerized sewing cotton thread to match the fabric.
3. 1 metre embroidery thread (contrasting colour to the fabric).