

NAME: .....

SCHOOL:.....

DATE: .....

## **INTRODUCTION TO CHEMISTRY**

### **INSTRUCTIONS TO CANDIDATES**

*Answer ALL questions in this paper in the spaces provided.*

1. Give two reasons why luminous flame is not used for heating purposes in the laboratory.

(2mks)

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2. The figure below shows the luminous flame of the Bunsen burner.



- (i) On the diagram label the hottest and the coolest part of the flame. (1mk)  
(ii) **Explain** why the luminous flame produces more light than the non-luminous flame.

(1mk)

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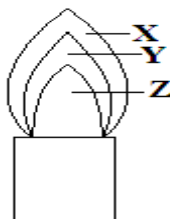
3. (a) **Name** the apparatus used for heating in the laboratory. (2mks)

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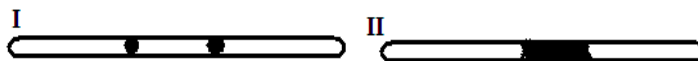
- (b) **What** is a flame? (1mk)

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- (c) **Name** the zones labelled X,Y and Z in the diagram below. (3mks)



- (d) The diagram below shows apparatus of the wood splint put at different parts of a non- luminous flame and removed quickly before they catch fire.



- I Wood splint placed at a lower part of the non - luminous flame.  
II Wood splint placed at the upper part of the non- luminous flame

(i) **What would** the experiments show about the outer region of the non- luminous flame? (2mks)

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(ii) From the above experiment, which part of the flame is better to use for heating? **Give a reason.** (1mk)

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(ii) **Why** is it important to put off naked flames that are not in use in the laboratory?(1mk)

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