



# THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

(A CONSTITUENT COLLEGE OF JKUAT)

(A Centre of Excellence)

***Faculty of Applied and Health Sciences***

DEPARTMENT OF **PURE AND APPLIED SCIENCES**

DIPLOMA IN ANALYTICAL CHEMISTRY

(DAC 12 S)

## **ACH 2108 : LABORATORY PRACTICE I**

**SPECIAL/SUPPLEMENTARY: EXAMINATIONS**

**SERIES: FEBRUARY 2013**

**TIME: 2 HOURS**

### **INSTRUCTIONS:**

You should have the following for this paper

- *Answer booklet*

This paper consists of **FIVE** questions.

Answer Question **ONE (compulsory)** and any other **TWO** questions

*This paper consists of 2 PRINTED pages*

### Question ONE

- a) State THREE pieces of information needed by a laboratory designer. (3marks)
- b) State SIX factors that influence selection of materials for bench top (6marks)
- c) (i) Define the term fitting (1mark)  
(ii) Name THREE different parts within the laboratory where fittings are located (3marks)  
(iii) Name
  - (a) FOUR fittings associated with lighting (4marks)
  - (b) FOUR fittings associated with safety (4marks)
  - (c) TWO fittings associated with storage (2marks)
- d) State SEVEN requirements for equipment installation (7marks)

### Question TWO

- a) As construction material for laboratory equipment state eight advantages and two disadvantages of plastic compared to glass. (10marks)
- b) List FIVE items that the bench top should withstand (5marks)

### Question THREE

- a) (i) Define the term ventilation (2marks)  
(ii) List FIVE purposes of ventilation (5marks)
- b) State EIGHT factors that influence selection of flooring material in a building. (8marks)

### Question FOUR

- a) State SEVEN advantages and FOUR disadvantages of glass as construction material for scientific equipment (11marks)
- b) (i) Define the term diffuse light (1mark)  
(ii) State THREE types of glass that can be used to diffuse light entering through a glass window. (3marks)

### Question FIVE

- a) Name THREE types of chemical substances that attack glass and for each give two specific examples of such substances (9marks)
- b) List SIX advantages of polythene drainage pipes. (6marks)