



# Technical University of Mombasa

*Faculty of Applied and Health Sciences*

DEPARTMENT OF **PURE AND APPLIED SCIENCES**

DIPLOMA IN ANALYTICAL CHEMISTRY

(DAC 11M)

**ACH 2303: PHOTOGRAPHY, CRYOGENIC, GLASS BLOWING (PVG)**

**SPECIAL/SUPPLEMENTARY: EXAMINATIONS**

**SERIES: OCTOBER 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) (i) Explain photography (2marks)
- (ii) Explain requirements needed for glass blowing workshop (4marks)
- b) (i) Give reasons why a cryogenic contains should not be completed closed (1mark)
- (ii) Describe a Dewar (3marks)
- (iii) Give account of operation care of over head projector (OHP) (2marks)
- c) Describe contact printing (6marks)
- d) (i) Explain how to test for a dark room (4marks)
- (ii) Mention any FOUR microscopes (2marks)
- e) (i) Draw and label 35mm camera (3marks)
- (ii) Classify camera according to film codes (3marks)

### Question TWO

- a) Describe photographic developing Tank (10marks)
- b) Explain the following :
  - (i) Depth of field (3marks)
  - (ii) Circle of confusion (2marks)
  - (iii) F-number (3marks)
  - (iv) Open-light (2marks)

### Question THREE

- a) Discuss the benefits of using overhead project (OHP) (10marks)
- b) Outline basic characteristics of an dark room. (10marks)

### Question FOUR

- a) Differentiate between soft and hard glass (10marks)
- b) Explain the following
  - (i) Devitrification (3marks)
  - (ii) Bloom (3marks)
  - (iii) Annealing of glass (4marks)