



# TECHNICAL UNIVERSITY OF MOMBASA

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FACULTY OF APPLIED AND HEALTH SCIENCES

DEPARTMENT OF PURE & APPLIED SCIENCES

**UNIVERSITY EXAMINATION FOR:**

**DIPLOMA IN ANALYTICAL CHEMISTRY**

**DAC 14S**

**ACH 2211: PHOTOGRAPHY AND CRYOGENIC TECHNIQUES**

**END OF SEMESTER EXAMINATION**

**SERIES: APRIL 2016**

**TIME: 2 HOURS**

**DATE:** Pick Date Select Month Pick Year

## **Instructions to Candidates**

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of **FIVE** questions. Attempt question ONE (Compulsory) and any other TWO questions.

**Do not write on the question paper.**

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## **Question ONE**

- (a) Outline the procedures of carrying out film development in a darkroom. (12 marks)
- (b) Explain the three chief enemies of a camera. (9 marks)
- (c) Describe three types of developing papers. (9 marks)

## **Question TWO**

- (a) Explain the following type of lenses used in photography.
  - (i) Meniscus lens. (5 marks)
  - (ii) Achromatic lens. (3 marks)
  - (iii) Wide angle lens. (4 marks)
- (b) Explain two ways of correcting coma lens defect. (3 marks)

### **Question THREE**

- (a) State eight points of how one can take care of a lens. (8marks)
- (b) (i) Define cryogenic liquids. (3marks)
- (ii) List four inert gases that can form cryogenic liquids. (4marks)

### **Question FOUR**

Discuss the following groups of hazards of cryogenic liquids.

- (i) Extreme cold. (5marks)
- (ii) Asphyxiation. (6marks)
- (iii) Toxicity. (4marks)

### **Question FIVE**

Discuss briefly the following types of film.

- (i) Panchromatic (8marks)
- (ii) Hyper panchromatic (7marks)