



# TECHNICAL UNIVERSITY OF MOMBASA

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.**

## **Question ONE**

- (a) Briefly discuss the occurrence of the following double convex lens defects that must be overcome in photographic work.
- (i) Spherical aberration. (5marks)
  - (ii) Distortion. (5marks)
  - (iii) Chromatic aberration. (8marks)
- (b) (i) State four uses of infrared film. (4marks)
- (ii) Explain the importance of agitating film during development (2marks)
- (c) Briefly discuss Chloride type of print developing out paper. (6marks)

## **Question TWO**

- (a) State four types of filters (4marks)
- (b) Briefly discuss print out paper, a type of photographic printing paper (5marks)
- (c) State four functions of preliminary water in development tank during film development Process (4marks)

(d) List four examples of cryogenic liquids.

(2marks)

### **Question THREE**

(a) List (i) nine factors that affect film exposure

(9marks)

(ii) Four chief enemies of a camera

(4marks)

(b) Define cryogenic fluids.

(2marks)

### **Question FOUR**

(a) Discuss three types of cryogenic liquids.

(9marks)

(b) State three (i) groups of hazards that are associated with cryogenic fluids.

(3marks)

(ii) Uses of cryogenic fluids

(3marks)

### **Question FIVE**

(a) Discuss briefly Panchromatic type of film

(8marks)

(b) Explain the following types of photographic lenses

(i) Zoom lens.

(3marks)

(ii) Fisheye lens

(4marks)