



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)