



TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF APPLIED AND HEALTH SCIENCES

DEPARTMENT OF PURE & APPLIED SCIENCES

UNIVERSITY EXAMINATION FOR:

DEGREE

**ACH 4301 : QUALITY CONTROL, ASSURANCE AND WASTE
MANAGEMENT**

END OF SEMESTER EXAMINATION

SERIES: DECEMBER 2016

TIME: 2 HOURS

DATE: Pick Date Dec 2016

Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

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

Do not write on the question paper.

Question ONE

a) Define the following terms:

(i) Quality (2 marks)

(ii) Quantity (2 marks)

(iii) Precision (2marks)

b) State the following:

(i) FIVE reasons why analytical results are sometimes wrong (5 marks)

(ii) FOUR classifications of wastes (4 marks)

(iii) TWO types of quality control (2 marks)

c) Outline FOUR applications of reference materials. (4 marks)

- d) Distinguish between warning and control limits in quality control charts (4 marks)
- e) Explain the goal of quality planning. (4 marks)
- f) Write the acronym, 'GMPs' in full. (1 mark)

Question TWO

- a) Explain the following:
 - (i) The risks associated with poor sampling (7 marks)
 - (ii) The importance of a waste material (3 marks)
- b) Outline FIVE uses of quality control charts (10 marks)

Question THREE

- a) Outline the sequential steps involved in the process of quality in design. (8 marks)
- b) Explain the meaning of the following:
 - (i) The term, 'collaborative study'. (8 marks)
 - (ii) The circumstances that may lead to simple random sampling (4 marks)

Question FOUR

Outline any FIVE advantages of the following:

- a) Waste recycling (10 marks)
- b) Waste incineration compared to other waste disposal options (10 marks)

Question FIVE

Discuss the main features of the following quality management systems:

- a) ISO 9001:2008 certification (4 marks)
- b) ISO/IEC 17025:2005 accreditation (8 marks)
- c) GLP compliance (8 marks)