



TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF APPLIED AND HEALTH SCIENCES

DEPARTMENT OF PURE & APPLIED SCIENCES

UNIVERSITY EXAMINATION FOR:

DIPLOMA IN ANALYTICAL CHEMISTRY (DAC 16S)

DIPLOMA IN SCIENCE LABORATORY TECHNOLOGY (DSLTL 16S)

ACH 2105 : LABORATORY SAFETY AND ETHICS

SPECIAL SUPPLEMENTARY EXAMINATION

SERIES: AUGUST 2017

TIME: 2 HOURS

DATE: 19 Sep 2017

Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of Choose No questions. Attempt Choose instruction.

Do not write on the question paper.

Question ONE

1. (a) Distinguish carcinogen from cryogen and give two examples for each. (6 Marks)
- (b) State the hazard associated with charging a lead acid battery and state two precautions that can be taken against the hazard. (4 Marks)
- (c) State four methods of ensuring that reaction vessels are uniformly heated (4 Marks)
- (d) Define the term fire triangle and state its significance (5 Marks)
- (e) (i) State the meaning of the term legal record in a laboratory (1 Mark)
- (ii) List four types of legal records encountered in a laboratory. (4 Marks)
- (f) List six fitting in a laboratory which are related to safety

Question TWO

- (a) Most accidents in a laboratory are preventable. Explain (4 Marks)
- (b) List five roles of a safety officer in an organization. (5 Marks)
- (c) State six precautions that should be taken when transporting glassware within laboratories (6 Marks)

Question THREE

- (a) List three types of dusts that can form explosive mixtures with air /oxygen and for each give two examples (9 Marks)
- (b) State six general precautions against chemical hazards (6 Marks)

Question FOUR

- (a) (i) Define the term first aid (3 Marks)
(ii) State five objectives of first aid (5 Marks)
- (b) State four precautions that should be taken against corrosive liquids. (4 Marks)
- (c) Describe briefly how acid splash to the eye is treated in first aid (3 Marks)

Question FIVE

- (a) State six ways of promoting recovery after first aid treatment (6 Marks)
- (b) State four ways in which explosions differ from ordinary chemical reactions. (4 Marks)
- (c) (i) Explain the term thermite reaction and give one example (3 Marks)
(ii) State two precautions that can be taken against the hazard associated with thermite reaction. (2 Marks)