



TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF MEDICAL ENGINEERING

UNIVERSITY EXAMINATION FOR:

DIPLOMA IN MEDICAL ENGINEERING (DME 115 Y1 S2)

EHL 2106 : REFRIGERATION AND AIR CONDITIONING II

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 **FOUR** questions. Attempt any **THREE** questions.

Do not write on the question paper.

QUESTION ONE

(a) Tabulate to show **FOUR** differences between a refrigeration and an air conditioning units
(8Marks)

(b) Describe the 3R_s in refrigeration and air conditioning fields.

(6Marks)

(c) Describe the relevance of the following elements in a refrigeration or air conditioning unit

i) Pressurestat

ii) Humidistat

iii) TEV

(6Marks)

QUESTION TWO

- (a) List any SIX types of Air Conditioning Units
(6Marks)
- (b) Describe any THREE of the above mentioned units (in (a) above)
(9Marks)
- (c) Sketch and label a refrigeration system analyzer.
(5Marks)

QUESTION THREE

- (a) Describe FIVE possible causes of Heat Load Sources in Central Air Conditioning Unit.
(10Marks)
- (b) With the aid of sketches describe the following processes in an air conditioning unit:
 - i) Humidification
 - ii) Dehumidification(10Marks)

QUESTION FOUR

Explain procedure to **Recharge either** a refrigeration or an air conditioning unit after repair.

(20Marks)

QUESTION FIVE

- (a) Tabulate FOUR points to compare and contrast between Split Unit and Window mounted type Air Conditioners.
(8Marks)
- (b) List any SIX types used on an air conditioning unit
(6Marks)
- (c) List any **SIX** features/elements of an oxy-acetylene welding set.
(6Marks)