



TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF MEDICAL ENGINEERING

UNIVERSITY EXAMINATION FOR:

DIPLOMA IN MEDICAL ENGINEERING (DME 116 / DTME 116
Y1 S2)

EHL 2106: REFRIGERATION AND AIR CONDITIONING II

SPECIAL SUPPLEMENTARY EXAMINATION

SERIES: AUGUST 2017

TIME: 2 HOURS

DATE: 7 Sep 2017

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 COMPULSARY

(a) Outline an Installation and Commissioning procedure report of a new air conditioning unit.

(14Marks)

(b) Describe any FIVE uses of refrigeration and air conditioning in different fields.

(10Marks)

(c) Describe any THREE heat Load sources in an air conditioning unit

(6Marks)

QUESTION TWO

(a). List 6 sources of noise in an air conditioning unit.

(6Marks)

(b). Describe 5 methods of noise reduction in an air conditioning unit.

(10Marks)

(c). Sketch and label a Plenum unit.

(4Marks)

QUESTION THREE

(a). List FIVE types of Filters in an air conditioning unit.

(5Marks)

(b). Describe the operation of any THREE of these Filters (in (a) above).

(9Marks)

(c) Describe the following Processes in refrigeration:

i) Refrigerant Recovery

ii) Refrigerant Recycling

(6Marks)

QUESTION FOUR

(a) Describe a **Refrigerant Recovery Procedure** from a faulty air conditioning unit.

(10Marks)

(b) Aided by sketches describe a humidification and dehumidification in an air conditioning unit.

(10Marks)

QUESTION FIVE

- (a) List any 6 types of air conditioning units
(6Marks)
- (b) Describe any FOUR types of “Airs” in air conditioning unit.
(8Marks)
- (c) Sketch to show THREE flame types of an Oxy-Acetylene torch.
(6Marks)