



TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF MEDICAL ENGINEERING

UNIVERSITY EXAMINATION FOR:

DIPLOMA IN MEDICAL ENGINEERING

EHL 2208: KITCHEN & LAUNDRY EQUIPMENT

SPECIAL/SUPPLEMENTARY EXAMINATION

SERIES: SEPTEMBER 2018

TIME: 2HOURS

DATE: Pick Date Sep 2018

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) With reference to construction and loading, explain the **THREE** main types of washing machines **10 Marks**
- b) Explain the following terms/components as used in washing machine process **10 Marks**
- i) Tumbling
 - ii) Spinning
 - iii) Solenoid valve
 - iv) Load
 - v) Detergent
- c) As a medical engineering technologist, explain the **FIVE** reasons why you should learn about kitchen and laundry equipment. **10 Marks**

Question TWO

- a) Explain any **THREE** main groups of kitchen equipment **3 Marks**
- b) Explain **FOUR** energy supplies to a standard kitchen **4 Marks**
- c) Assume you are designing a kitchen for a county hospital, explain the important factors to be considered in the designing process **13 Marks**

Question THREE

- a) i) Explain any **THREE** quantities/parameters which must be controlled during automatic washing process. **9 Marks**
- ii) Explain how they (quantities/parameters in 3 (a) (i)) are controlled
- b) Explain why washing machines are fitted with the following:-
- i) Shock absorbers
 - ii) Two washing detergent chambers/compartments **11 Marks**

Question FOUR

- a) Outline the sequences involved in an automatic machine washing process **8 Marks**
- b) Explain the following terms as used in washing machines. **12 Marks**
- i) A process
 - ii) Control
 - iii) Automatic control

Question FIVE

1. a) With the aid of neat sketches, describe the following:-
- i) Ball bearings
 - ii) Roller bearings
 - iii) Needle bearings
 - iv) Plain bearings
- 8 Marks**
- b) With the aid of neat sketches, explain the **THREE** types of mechanical methods used to transmit motion from driver to driven in washing machines
- 9 Marks**
- c) With reasons, name the commonest method used to transmit motion from driver to driven in washing machines
- 3 Marks**