



Technical University of Mombasa

Faculty of Engineering and Technology

DEPARTMENT OF MEDICAL ENGINEERING

DIPLOMA IN MEDICAL ENGINEERING
(DME JAN 2013/S-PT Y2 S1)

EHL 2205

KITCHEN AND LAUNDRY EQUIPMENT

SPECIAL/SUPPLEMENTARY EXAMINATIONS

SERIES: JUNE 2013

TIME: 2 HOURS

INSTRUCTIONS TO CANDIDATES:

You should have the following for this examination

- Answer booklet

Question **ONE** is **COMPULSORY** and any other **TWO**
This paper consists of **3 PRINTED** pages

QUESTION ONE (COMPULSORY)

- (a) Explain **FIVE** reasons why kitchen and laundry departments are considered to be very important departments in the hospital. **(10 marks)**
- (b) Differentiate between the following **(10 marks)**
- (i) Manual control and automatic control
 - (ii) Washing machine and tumbler dryer
 - (iii) Pre-wash and main wash. **(6 marks)**
- (c) Explain the function(s) of the following:-
- (i) Bearing
 - (ii) Shaft seal
 - (iii) Pulley/Belt combination **(6 marks)**
- (d) Outline the sequence of events in an automatic washing machine process. **(8 marks)**

QUESTION TWO

- (a) Explain why washing machines are fitted with the following:-
- (i) Shock absorbers
 - (ii) Two washing detergent chambers/compartments. **(4 marks)**
- (b) (i) State any **THREE** quantities/parameters which must be controlled during automatic washing process
- (ii) Explain how the (quantities/parameters which must be controlled during automatic washing process. **(9 marks)**
- (c) Sketch Pulley/Belt combination for motion transmission. **(7 marks)**

QUESTION THREE

- (a) Explain **FIVE** reasons why a medical engineering technologist should learn about kitchen and laundry equipment. **(10 marks)**
- (b) Describe the **THREE** main types of washing machines. **(10 marks)**

QUESTION FOUR

(a) With the aid of neat sketches, differentiate the following:-

(8 marks)

- (i) Ball bearings
- (ii) Roller bearings
- (iii) Needle bearings
- (iv) Plain bearings.

(b) Explain the following terms as used in washing machines

- (i) A process
- (ii) Tumbling
- (iii) Spinning

(12 marks)

QUESTION FIVE

(a) State any **THREE** main groups of kitchen equipment.

(3 marks)

(b) State **FOUR** energy supplies to a standard kitchen

(4 marks)

(c) Assume that you are designing a kitchen for a country hospital, explain the important factors to be considered in the designing process.

(13 marks)