



TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF MEDICAL ENGINEERING

UNIVERSITY EXAMINATION FOR:

DIPLOMA IN MEDICAL ENGINEERING

ECL 2201: DENTAL 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). Sketch and label the water and draining circuit diagram of a dental Caspidor Bowl unit.

12 Marks.

(b). List any Eight hand pieces/devices in cooperated in a dental chair unit

8 Marks

(c). Outline any Five advantages/limitations for any Two types of dental chairs.

10 Marks.

QUESTION TWO

Sketch and label hydraulic and electrical circuit diagrams to show:

- (a). a single acting cylinder for up and down movements of a dental chair
 - (b). a double acting cylinder for the back-rest movements of a dental chair
- 20 Marks

QUESTION THREE

- (a). Outline Five uses of electrical supply to a dental unit.
5 Marks.
- (b). Describe Three methods of creating vacuum/suction in a dental chair.
6 Marks
- c). Differentiate between:
 - (i). an Aspirator and Suction Nozzle
 - (ii). Dental Light and Fibre Optic Light4 Marks
- d). List the Five factors that determine the effectiveness of a Dental Surgery Hand piece.
5 Marks

QUESTION FOUR

- (a). List:
 - (i). the TWO main types of dental diseases
 - (ii). any FOUR teeth malfunctions/disorders6 Marks
- (b). Describe functions for FOUR types of teeth in a man
8 Marks
- c). Outline the SIX importance of teeth in a man.
6 Marks

QUESTION FIVE

Sketch and label a complete water and air/pneumatic circuit diagram showing feature elements.
20 Marks

