



MUEO

MOI UNIVERSITY

**OFFICE OF THE DEPUTY VICE CHANCELLOR, ACADEMIC
AFFAIRS, RESEARCH & EXTENSION
UNIVERSITY EXAMINATIONS
2023/2024 ACADEMIC YEAR**

**END OF SEMESTER EXAMINATIONS
FOR THE DEGREE OF
BACHELOR OF CIVIL AVIATION MANAGEMENT**

EXAM CODE: BCM 411

COURSE TITLE: AIRPORT PLANNING & DESIGN

DATE: 15TH DECEMBER 2023

TIME: 2.00AM-5.00PM

INSTRUCTION TO CANDIDATES

➤ **SEE INSIDE.**

THIS PAPER CONSISTS OF (1) PRINTED PAGE

PLEASE TURN OVER

BCM 411 : Airport Planning and Design

Fourth Year , First Semester Examination 2023

Instructions : Answer Question one and any other three questions.

Time: 3hrs

(35 copies)

QUESTION 1

Explain the following terms as precisely as possible;

- a. Runway configurations
- b. OEW (Operating Empty Weight)
- c. Throughput capacity
- d. VFR conditions
- e. Runway orientation

(25 marks)

QUESTION 2

- a. Horizontal (imaginary) surface.
(5 Marks)
- b. Discuss the design objectives of the runway.
(10 Marks)

(Total 15 Marks)

QUESTION 3

- a. Explain the wind rose and its use in the design of a runway.

(15 marks)

QUESTION 4

- a. Explain landing gear configurations.
(5 Marks)
- b. Discuss atmospheric conditions that affect aircraft performance.
(10 Marks)

(Total 15 Marks)

QUESTION 5

- a. Explain how metrological conditions affect runway capacity?
(5 Marks)

- b. Discuss the ground access design objectives.
(10 Marks)

(Total 15 Marks)