



MOI UNIVERSITY

OFFICE OF THE DVC ACADEMIC AFFAIRS, RESEARCH AND EXTENSION

UNIVERSITY EXAMINATIONS

2016/2017 ACADEMIC YEAR

END OF SEMESTER EXAMINATIONS

**FOR THE DEGREE IN BACHELOR OF
BUSINESS AND ECONOMICS**

EXAM CODE: BCM 412

EXAM TITLE: AIR TRAFFIC MANAGEMENT

DATE: 6TH JUNE, 2017

TIME: 2.00 P.M. –5.00 P.M.

INSTRUCTION TO CANDIDATES

➤ **SEE INSIDE**

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PLEASE TURN OVER

BCM 412: AIR TRAFFIC MANAGEMENT

Answer QUESTION ONE and any other THREE QUESTIONS.

QUESTION ONE

- a) State the objectives of the air traffic services **(15 Marks)**
- b) The pilot-in-command of an aircraft shall be responsible for the operation of the aircraft in accordance with rules of the air. Give two instances when he may depart from them in the interest of safety to the extent necessary.
(6 Marks)
- c) Define the term 'ATM'. **(4 Marks)**

QUESTION TWO

State three types of airspace restrictions and for each, give two main reasons for such restrictions/ reservation. **(15 Marks)**

QUESTION THREE

Discuss the divisions of Air Traffic Control relative to the objectives that each division serves. **(15 Marks)**

QUESTION FOUR

Various procedures are applicable by Air Traffic Control units when separating aircraft in the en-route phase as well as aircraft in the arrival and departure phases of flight. Discuss the following methods of separation.

(5 Marks each)

- a) Vertical separation
- b) Horizontal separation
- c) Longitudinal separation

QUESTION FIVE

The analysis of an incident should be considered in relation to system operations. Discuss the factors to be considered when carrying out an ATS incident Analysis.

(15 Marks)

QUESTION SIX

- a) Discuss three factors that will be considered by the unit providing aerodrome control service in selecting the runway-in-use.

(6 Marks)

- b) Before the provision of air traffic services, the need for the service has to be established. State three factors that will determine the need for the provision of air traffic services.

(6 Marks)

- c) Give a reason why aircraft clearances are issued. **(3 Marks)**