



MOI UNIVERSITY

OFFICE OF THE DEPUTY VICE CHANCELLOR
(ACADEMICS, RESEARCH & EXTENSION)

UNIVERSITY EXAMINATIONS

2021/2022 ACADEMIC YEAR

THIRD YEAR SECOND SEMESTER EXAMINATION

FOR THE DEGREE OF

BACHELOR

OF

CIVIL AVIATION MANAGEMENT

COURSE CODE: BCM 325

COURSE TITLE: AVIATION SAFETY AND SECURITY
MANAGEMENT

DATE: 20TH APRIL, 2022 **TIME:** 2.00 PM – 5.00 PM.

INSTRUCTION TO CANDIDATES

- SEE INSIDE.

THIS PAPER CONSISTS OF (4) PRINTED PAGES

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MOI UNIVERSITY

SCHOOL OF BUSINESS & ECONOMICS

COURSE CODE: BCM 325

COURSE DESCRIPTION: AVIATION SAFETY AND SECURITY MANAGEMENT

Instructions:

- i. Answer **any four** questions
 - ii. Time Allocated: **3 hours**
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QUESTION 1.

During the last audits at your organization, the regulator identified that safety risk management and safety promotion are not being effectively implemented at your organization and issued a corrective action request for the same. As an accountable executive detail how you will ensure these regulatory audit findings are closed while ensuring both profitability and safety.

(25 Marks)

QUESTION 2.

a) After Sept 9/11 attacks the Aviation Industry around the world was adversely affected. Explain the global impacts of the attacks.

(10 Marks)

b) According to Annex 17 standard 3.2.1 each contracting state require Airport serving Civil Aviation to establish, implement and maintain a written security program. Discuss the element of an Airport security program.

(15 Marks)

QUESTION 3.

a) In the control of hazard barriers, socio-technical and continuous hardware controls assist in the early detection of unsafe events. In the detect, decide and act model, explain your understanding of the two terms.

(3 Marks)

(b) Elaborate on some Aviation Security challenges.

(10 Marks)

(c) Name some vulnerable points and facilities in an Airport in respect to Aviation Security.

(8 Marks)

(d) During the peer review, you were tasked to conduct safety promotion within your organization. Illustrate how you would implement the task.

(4 Marks)

QUESTION 4.

a) Explain by giving examples of each of the five classification of hazards in the Aviation Industry.

(10 Marks)

b) Everyone in the Aviation Industry needs to be aware of human factors issues. Discuss their role in the Aviation Safety.

(10 Marks)

c) There are different agencies mandated with responsibility of ensuring security at the Airports. List at least five of these agencies.

(5 Marks)

QUESTION 5.

a) List and explain three generic risk control and mitigation strategies, explaining what perspectives each strategy should be examined.

(15 Marks)

b) Describe the four (4) components of a mature SMS framework, briefly explaining at least two (2) elements in each component.

(8 Marks)

c) Errors are the greatest contributor of accidents and incidents in the aviation industry. Illustrate the difference between Active Errors and Latent Errors.

(2 Marks)

QUESTION 6.

a) Describe 5 (five) objectives of the National Civil Aviation Security Program (NCASP).

(15 Marks)

b) As a key Safety Personnel tasked with the implementation and maintenance of effective SMS in your organization, describe five (5) duties you would be tasked to undertake.

(10 Marks)

QUESTION 7.

a) The basic strategies commonly used to deal with management of human error are Engineering strategies and administrative strategies. Briefly discuss what is involved in these strategies.

(15 Marks)

b) What is the Crew's response to an act of un Lawful Interference?

(10 Marks)

QUESTION 8.

a) Elaborate on the common sources of hazards in accordance to ICAO DOC.9859. Safety management manual.

(7 Marks)

b) Discuss the classification of threats showing clearly the category of action, object of action, and the aim of action.

(8 Marks)

c) List the objectives of an emergency planning

(4 Marks)

d) Examine the 12 elements that should be considered in building the safety program.

(4 Marks)

