UTHM
Universiti Tun Hussein Onn Malaysia

UNIVERSITI TUN HUSSEIN ONN MALAYSIA

FINAL EXAMINATION
SEMESTER II
SESSION 2022/2023

COURSE NAME   : AVIATION HUMAN FACTOR

COURSE CODE   : BDL 30702

PROGRAMME CODE   : BDC

EXAMINATION DATE   : JULY/AUGUST 2023

DURATION   : 2 HOURS

INSTRUCTION   : 1. SECTION A: ANSWER **ALL** QUESTIONS
SECTION B: ANSWER **ONE** QUESTION **ONLY**

2. THIS FINAL EXAMINATION IS CONDUCTED VIA **CLOSED BOOK.**

3. STUDENTS ARE **PROHIBITED** TO CONSULT THEIR OWN MATERIAL OR ANY EXTERNAL RESOURCES DURING THE EXAMINATION CONDUCTED VIA CLOSED BOOK

THIS QUESTION PAPER CONSISTS OF **THREE (3)** PAGES

SECTION A: ANSWER **ALL** QUESTIONS.

Q1 (a) Briefly explain the origin and **three (3)** objective of human factor concept in aviation.

(10 marks)

(b) Relate the **five (5)** principles of human factor with concern to human abilities, limitations and jobs to perform.

(15 marks)

Q2 (a) State the official publications related to Human Factor published by ICAO and briefly explain the contents of the publications.

(5 marks)

(b) List **five (5)** possible causes of human error.

(10 marks)

(c) With reference to the answers you provided in Q2(b), briefly explain **five (5)** causes of human errors and provide example for each cause.

(10 marks)

Q3 (a) List **five (5)** major causes of defective vision to human.

(5 Marks)

(b) Compare the differences between the auditory and vestibular aspects of the ear.

(10 Marks)

(c) Illustrate Maslow's hierarchy of needs and provide the examples for each level of the hierarchy.

(10 marks)

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SECTION B: ANSWER **ONE** QUESTION **ONLY**.

Q4   Mental health refers to the psychological state of someone who is functioning at a satisfactory level of emotional and behavioural adjustment.

     (a)   Mental illness can be divided into three (3) main categories which are biological, psychological, and environmental. List three (3) possible risk/causes of mental illness for each categories mentioned here.

                                                  (10 marks)

     (b)   Provide example of real air incident/accident that is related to pilot's mental health as one of the causes of the incident/accident.

                                                  (15 marks)

Q5   Stress is a heightened state of arousal caused by external stressful events known as stressors.

     (a)   Describe the effects of stress on brain function by providing graph showing relationship between arousal and stress.

                                                  (10 marks)

     (b)   Provide five (5) suitable cockpit stress management techniques that ca be applied by pilot.

                                                  (15 marks)

-   **END OF QUESTIONS -**

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