

Name:  
Enrolment No:



UPES

End Semester Examination, May 2024

Course: Aviation Safety and Security Management

Semester: IV

Program: MBA Aviation Management

Time: 03 hrs.

Course Code: TRAV8020

Max. Marks: 100

**Instructions:**

1. The student must write his/her name and enrolment no. in the space designated above.
2. Read the instructions and questions carefully before starting to write the answers.
3. Manage your time effectively during the exam.
4. Write legibly and avoid any kind of cheating or plagiarism.
5. Review your answers before submitting the exam.
6. Contact the invigilator if you have any queries or issues during the exam.

**SECTION A**

10Qx2M=20Marks

S. No.	Attempt All questions	Marks	CO
Q1.	The Area between any Pax inspection or screening control point and aircraft in which access is control a) Airside b) Landside c) Security Hold Area d) Sterile Area	2	CO1
Q2.	Which does not include in the “Act of Unlawful Interference” a) Hijacking b) Sabotage c) Disruption of communication facility d) Pilferage	2	CO1
Q3.	CASO stands for a) Chief Airport Security Officer b) Chief Aviation Security Officer c) Commissioner of Airport Security officer d) None of the above	2	CO1
Q4.	Airport Entry Permit does not contain a) Photo b) Name of pass holder c) Area of Validity d) Permanent address	2	CO1
Q5.	Annexure 17 deals with i) Aviation Safety ii) Aviation Safety iii) Airport Manual iv) Aircraft Manual	2	CO1

Q6.	Security of Parked Aircraft is done by i) Airport Operator                                  ii) Airline iii) BCAS    iv) CISF	2	CO1
Q7.	Which element of SMS involves identifying hazards and assessing the subsequent risks? A) Safety Assurance B) Safety Risk Management C) Safety Policy and Objectives D) Safety Promotion	2	CO1
Q8.	As per the SMS Handbook, what is the first step in establishing a Safety Management Framework? A) Developing SMS Manual and Procedures B) Hazard Identification and Risk Mitigation C) Defining the Scope of SMS D) Establishing Basic Plan and Assignment of Responsibilities	2	CO1
Q9.	According to ICAO Annex 19, what is the primary purpose of a Safety Management System (SMS)? A) To regulate the economic aspects of aviation safety B) To ensure efficient airport operations C) To provide a systematic approach to managing safety D) To manage airport emergency responses	2	CO1
Q10.	Which component of SMS is directly involved with taking preventive and corrective actions as per ICAO Annex 19? A) Safety Promotion B) Safety Risk Management C) Safety Assurance D) Safety Policy and Objectives	2	CO1
<b>SECTION B</b> <b>4Qx5M= 20 Marks (Attempt All questions)</b>			
Q11.	Define an 'Aviation Hazard' and provide an example to illustrate the concept.	5	CO2
Q12.	Outline the five fundamental steps in Risk Management in aviation.	5	CO2
Q13.	What is a 'Runway Incursion'? Provide examples to clarify the term.	5	CO2
Q14.	Identify the key agencies involved in airport emergency planning and their roles both on and off the airport premises.	5	CO2
<b>SECTION-C</b> <b>3Qx10M=30 Marks (Attempt All questions)</b>			
Q15.	Explain the concept of 'Management of Change' within an SMS framework and its importance.	10	CO3

Q16.	Explain the four major components of Safety Management System.	10	CO3
Q17.	What are the mitigating measures to avoid / minimize the accidents due to the vehicular movements on airside?	10	CO3
<b>SECTION-D</b> <b>2Qx15M= 30 Marks (Attempt All questions)</b>			
Q18.	What are ICAO SARPs? Write differences between them. Give one example of the SARPs. What are the aspects of aviation that are covered in the SARPs? How are these developed by ICAO? Why SARPs are effective.	15	CO4
Q19.	<p>On 24 September 2015, Shaheen Air International scheduled passenger flight number SAI791, operated by a Boeing 737-400 Aircraft, registration AP-BJR, departed from Sharjah International Airport (OMSJ), the United Arab Emirates, at 0239 local time (LT) to Bacha Khan International Airport (OPPS), Pakistan. Instead of the assigned runway 30, the Aircraft took off from the parallel taxiway Bravo. The Investigation was informed four days after the Incident and was not able to interview the flight crewmembers.</p> <p>Using the Aircraft flight data, and air traffic communications, the taxi route up to takeoff was determined. This confirmed that the Aircraft did turn onto taxiway Bravo and departed from this taxiway.</p> <p>The air traffic Controller lost the visual watch on the Aircraft as it taxied from taxiway Alpha 20 towards taxiway Bravo and regained sight of the Aircraft on taxiway Bravo as it passed the taxiway Alpha 18 intersection. No attempt was made by ATC to stop the Aircraft during its takeoff roll on the taxiway. The Controller decision was to allow the takeoff to continue as the Aircraft speed was unknown and taxiway Bravo was sterile at the time.</p> <p>After takeoff, the flight crew were not informed about the taxiway takeoff and the flight continued for an uneventful landing at the destination airport. The crew were made aware of the Incident by the Aircraft Operator five days later.</p> <p>The Investigation could not determine why the flight crew did not notice that they had lined up on a taxiway, but the flight crew stated that they had no doubt, but that they were lined up on the runway and they never had reason to question the visible cues, including the lighting. The difference between runway and taxiway lighting is significant yet this was not recognized by the flight crew.</p> <p>a) Analyze the above serious incident using SHELL model and identify probable mismatches that could have contributed to the serious incident.</p> <p>b) Define “Incident” and “Serious Incident”. Why the above can be called as “serious incident”.</p>	15	CO4