

Enrolment No./Seat No \_\_\_\_\_

## GUJARAT TECHNOLOGICAL UNIVERSITY

BE- SEMESTER-IV (NEW) EXAMINATION – WINTER 2024

**Subject Code:3140109**

**Date:22-11-2024**

**Subject Name:Aviation Management**

**Time:02:30 PM TO 05:00 PM**

**Total Marks:70**

**Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

		<b>Marks</b>
<b>Q.1</b>	(a) Write a full form of DGCA, ICAO and AAI. (b) What types of facilities are available for passengers in airplane? (c) What role do HAL (Hindustan Aeronautics Limited) and DRDO (Defence Research and Development Organisation) play in advancing India's indigenous fighter jet and military aircraft development?	<b>03</b> <b>04</b> <b>07</b>
<b>Q.2</b>	(a) What are FAA and EASA? (b) What is the role of IATA? (c) What are the challenges faced by the Indian civil aviation industry in terms of infrastructure and regulatory reforms, and how are these being addressed?	<b>03</b> <b>04</b> <b>07</b>
	<b>OR</b>	
	(c) How has the acquisition of Rafale jets and other modern aircraft bolstered the capabilities of the Indian Air Force, and what future acquisitions are planned?	<b>07</b>
<b>Q.3</b>	(a) Who is called as father of aviation? And what is advancement done by him (b) What is the role of ICAO? (c) What are the key differences between VFR and IFR (Instrument Flight Rules) charts, and how are they used by pilots?	<b>03</b> <b>04</b> <b>07</b>
	<b>OR</b>	
<b>Q.3</b>	(a) What are the standard aviation weather symbols and signs used in weather charts? (b) What is the role of AAI? (c) How do sectional aeronautical charts help pilots navigate airspaces, and what specific information do they provide regarding terrain and airspace structure?	<b>03</b> <b>04</b> <b>07</b>
<b>Q.4</b>	(a) How do pilots use ATC (Air Traffic Control) clearance transmissions? (b) What is the difference between METAR and TAF reports? (c) What role does ATIS (Automatic Terminal Information Service) play in providing real-time weather updates and airport information to incoming and outgoing aircraft?	<b>03</b> <b>04</b> <b>07</b>
	<b>OR</b>	
<b>Q.4</b>	(a) What is VFR?	<b>03</b>

(b) How is vertical and horizontal separation maintained between aircraft in controlled airspace to ensure safe distances during enroute flights? **04**

(c) What types of messages are typically included in ACARS (Aircraft Communications Addressing and Reporting System) transmissions, and how do they support real-time flight monitoring and airline operations? **07**

**Q.5**

(a) What is Approval procedure for New/Unused aircraft components? Shortly explain. **03**

(b) What role do Minimum Safe Altitudes (MSA) and separation minima play in ensuring aircraft safety during departure, enroute, and approach phases of flight? **04**

(c) What are the key responsibilities of the Directorate General of Civil Aviation (DGCA) in regulating civil aviation safety, and how does it ensure compliance with international aviation standards? **07**

**OR**

**Q.5**

(a) Write a note on air crash investigation. **03**

(b) What initiatives has the DGCA introduced to improve passenger safety and satisfaction? **04**

(c) How does the DGCA regulate and monitor the operations of airlines and airports in India, including safety audits and airworthiness of aircraft? **07**

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