CBCS SCHEME

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BAE/BAS755B

Seventh Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.2026
Air Traffic and Weather

Time: 3 hrs.

Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level , C: Course outcomes.

		Module – 1	M	L	C
Q.1	a.	With a neat sketch, explain different layers of Earth's atmosphere.	10	L2	CO1
	b.	Illustrate the process of cloud formation and precipitation with a labeled diagram.	10	L2	CO1
		OR			
Q.2	a.	Discuss on types of attitude with a neat sketch.	10	L2	CO1
	b.	Differentiate between cumulus and cirrus clouds in terms of their formation process.	10	L2	CO1
		Module – 2			
Q.3	a.	Describe the process of thunderstorm with a neat sketch.	10	L2	CO2
	b.	Compare and contrast the effect of rime ice and clear ice on the aircrafts lift and drag during flight.	10	L2	CO2
		OR			
Q.4	a.	Illustrate the life cycle movements of cyclone caused by frontal waves with a neat diagram.	10	L2	CO2
	b.	Discuss on aircraft take-off and landing techniques in arctic weather condition.	10	L2	CO2
		Module – 3			
Q.5	a.	Draw a simple flow chart of the AFTM process and use it to explain how delays are managed at airports.	10	L3	CO3
	b.	Describe the role of ICAO in global air-traffic management.	10	L3	CO3

		OR			
Q.6	a.	What are Traffic Management Technique? Discuss the working and significances of following : i. Traffic Management Advisor [TMA] ii. Ground Stops [GS]	10	L3	CO3
	b.	Describe the concepts of Integrated Collaborative Rerouting [ICR] and Operational Information System [OIS].	10	L3	CO3
		Module – 4			
Q.7	a.	Explain how weather conditions can lead to creation of flow constrained area.	10	L3	CO4
	b.	Discuss on SWAP and its steps.	10	L3	CO4
		OR			
Q.8	a.	Summarise the main purpose of using CDR's during busy traffic hours.	10	L3	CO4
	b.	Compare and contrast the effect of rime ice and clear ice on aircraft lift and drag.	10	L3	CO4
		Module – 5			
Q.9	a.	With an example, discuss on the call signs used by the ATC and Pilot.	10	L2	CO4
	b.	Explain the structure and functions of Air Navigation Services Providers [ANSP].	10	L2	CO4
		OR			
Q.10	a.	Explain concept of privitisation of ATC and its safety efficiency and service quality.	10	L2	CO4
	b.	Explain METAR and its importance in aviation.	10	L2	CO4

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