21AE753

Air Traffic and Weather Time: 3 hrs. Max. Marks: 100 Note: Answer any FIVE full questions, choosing ONE full question from each module. Module-1
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Module-1 1 a. Discuss the role of altimetry in air traffic control and weather forecasting. b. Explain the concept of air masses and their role in shaping weather patterns. OR 2 a. Describe the relationship between the earth's atmosphere and weather patterns. b. Elucidate the process of cloud formation and list the types of clouds. Module-2 3 a. Explain the characteristics of tropical weather phenomena. b. Explain the concept of jet stream and its impact on high altitude weather. OR 4 Write short note on: i) Icing ii) Turbulence iii) Artic weather iv) Thunderstorms. OR 5 Explain the following: i) Airspace flow program ii) Time based flow management. OR 6 a. How do air traffic controller use weather information to manage air traffic. Explain. b. What are different types of weather forecast used in aviation? Explain each type. Module-4 7 a. Describe the role of technology in global air traffic management. b. Explain briefly about severe weather avoidance plane. (10 Marks) (10 Marks) (10 Marks)
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8 a. Describe briefly about national playbook flow evaluation area and its purpose. (08 Marks)
b. Write short note on anti-icing and de-icing. (12 Marks)
Module-5
9 a. Discuss the role of air traffic service provider in supporting safe and efficient air traffic
operation. (10 Marks)
 Explain the process of decoding a METAR report. (10 Marks)
OR

Explain the different types of call signs used in aviations, including their format and uses.

(10 Marks) List the different types of air navigation service providers and their roles in supporting air traffic operation,

Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages. Important Note: 1. 2.