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**Presidency University**

**Bengaluru**

**SCHOOL OF MANAGEMENT**

**MAKE-UP EXAMINATION – SEP 2023**

**Date**: 04.10.2023

**Time**: 1.00PM - 4:00 PM

**Max Marks**: 100

**Weightage**: 50%

**Course Code**: AVM109

**Course Name**: Air Traffic Control

**Program & Sem**: BBA (Aviation)

**Instructions:**

1. *Read the question properly and answer accordingly.*

**Part A (Memory Recall Questions)**

**Answer all the questions. (10Qx3M=30M)**

1. The purpose of ATC is to ensure the safe and efficient flow of­­­­­ Air traffic.

a. True b. False

(C.O.No.1) [Knowledge]

2. Air traffic control (ATC) is a critical factor in the operations of every Airline.

a. True b. False

(C.O.No.4) [Knowledge]

3. In most of the world, all the phases of a scheduled airline flight from taxi-out and take

off to landing and taxi-in require the approval of ­­­­­­­­ATC. (C.O.No.1) [Knowledge]

a. True b. False

4. ATC provides flight information services to\_\_\_\_\_\_\_\_\_, such as weather reports and

updates on airport conditions. (C.O.No.1) [Knowledge]

a. Aircraft b. Airline

c. Airport d. Airport Ops

5. Recognize the expansion of Abbreviation VHF. (C.O.No.3) [Knowledge]

a. Very high frequency b. Varied High frequency

c. Varied Hexagonal frequency d. Very high friction

6. State the expansion of Abbreviation VFR (C.O.No.3) [Knowledge]

7. \_\_\_\_\_\_ it defines the underlying structure of airways that controllers use to organize

traffic and issue commands. (C.O.No.1) [Knowledge]

a. Communication System b. Navigation System

c. Metrology d. Airport operation

8. State the expansion of Abbreviation ACARS. (C.O.No.4)[ Knowledge]

9. The development and fast-growing use of GPS and other satellite-based navigation

systems has spurred a movement toward the Required Navigation Performance (RNP)

approach. Recognize if the above statement is true or false

(C.O.No.1)[Knowledge]

a. True b. False

10. State the expansion of Abbreviation “IFR” (C.O.No.3)[Knowledge]

**Part B (Thought Provoking Questions)**

**Answer all the Questions. (5Qx8M=40M)**

11. The International Civil Aviation Organization (ICAO) mandated that pilots and air traffic

controllers demonstrate language proficiency sufficient to deal with the linguistic challenges

presented by quickly changing and dynamic abnormal situations and emergencies that require

extended use of language outside that of standard radiotelephony (RT). In addition, Explain

how the controller issues commands (“clearances”) to aircraft through a communications

system. (C.O.No.4) [Comprehension]

12. Airplanes moved many times faster than ships, so air navigators had to work faster to fix their

position. Even minor miscalculations could result in much greater errors. Discuss the process

involved in Navigation Systems at ATC? (C.O.No.1) [Comprehension]

13. Explain how air traffic control facilities coordinate separation?

(C.O.No.1) [Comprehension]

14. The local controller is primarily responsible for the separation of aircraft operating within the

airport traffic area and those landing on any of the active runways. Briefly explain about the

duties of Local Controller. (C.O.No.4) [Comprehension]

15. By integrating the aircraft’s avionics with a high-speed data link, aircraft can request and be

assigned dynamic flight routes in four dimensions are called negotiated routes. Discuss the

improvements planned to negotiated routes (C.O.No.3) [Comprehension]

**Part C [Problem Solving Questions]**

**Answer all the Questions. (2Qx15M=30M)**

16. Arriving or transiting aircraft must obtain an ATC clearance prior to entering Class B airspace

on the appropriate frequency and relation to geographical fixes shown on local Class B charts.

Departing aircraft require a clearance to depart Class B airspace and should advise clearance

delivery of their intended altitude and route of flight. Unless otherwise authorized by ATC,

aircraft must be equipped with an operable two-way radio capable of communicating with ATC

on appropriate frequencies for that Class B airspace. Also, unless otherwise authorized by

ATC the aircraft must be equipped with an operable radar beacon transponder with automatic

altitude reporting equipment. Illustrate the functions of Airspace management at ATC?

(C.O.No.2)[ Application]

17. Civilian airspace is designated as “controlled” or “uncontrolled.” In controlled airspace, traffic

is supervised and managed by ATC, so that aircraft may fly in low-visibility Instrument

Meteorological Conditions (IMC). Aircraft are not directly managed by ATC in uncontrolled

airspace, which is normally restricted to low altitudes or remote regions where the traffic

density is low. Interpret the Airspace and ATC Structure (C.O.No.1)[Application]