



INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)

Dundigal, Hyderabad - 500 043

AERONAUTICAL ENGINEERING

TUTORIAL QUESTION BANK

Course Title	AVIATION MANAGEMENT				
Course Code	AAE019				
Programme	B.Tech				
Semester	VIII	AE			
Course Type	Core				
Regulation	IARE - R16				
Course Structure	Theory			Practical	
	Lectures	Tutorials	Credits	Laboratory	Credits
	3	--	3	--	--
Chief Coordinator	Ms. K.Sai priyanka, Assistant Professor				
Course Faculty	Ms.K.Sai priyanka, Assistant Professor				

COURSE OBJECTIVES

The course should enable the students to:

I.	Understand about the history of aviation, major player's airline industry, current trends and challenges.
II.	Impart the knowledge on airport planning, airport operation and various authorities involved in airport management
III.	Understand and gain the knowledge on the meteorological services, environmental regulation and airport fee, rates and charges.
IV.	Gain the in depth knowledge on safety regulation, economic regulation and aviation security.
V.	Understand about the air traffic control, air space and navigational aid.

COURSE OUTCOMES (COs)

I.	Gain knowledge about Airline industry and Analysis of different market potential.
II.	Understand Airport planning different types of privatizations.
III.	Understand the importance and role of private operators.
IV.	: Identify the methodology followed by ATC & DGCA.
V.	Understand the role of air traffic control and the navigational aids

COURSE LEARNING OUTCOMES (CLOs):

S. No	Description
AAE019.01	Provide knowledge on history of aviation industry.
AAE019.02	Understand airport system planning, airport master plan, airport lay out plan.
AAE019.03	Demonstrate governmental requirements on non-passenger related airport authority functions.
AAE019.04	Explain Air Traffic Services Describe the history and development of Air Traffic Services (ATS).
AAE019.05	Differentiate between private airports and public use airports, commercial service airports and primary commercial service airports.
AAE019.06	Discuss and identify the economic, political and social role of airports.
AAE019.07	Describe airport layout incorporating its different features navigation Explain air traffic rules and procedures.
AAE019.08	Explain construction of runway and taxiway and aprons as per geometric design for all parameters.
AAE019.09	Define the requirements of terminal area as per drawing, design and describe the visual aids for air traffic control system.
AAE019.10	Explain various elements of Heliports and its planning aspects.
AAE019.11	Understanding the Various Airport services- international air transport services – Indian Scenario
AAE019.12	Understand the role of private operators- Airport development fees, Rates & Tariffs.
AAE019.13	Understanding the role DGCA from the certification
AAE019.14	Knowledge on the role of air traffic control in airspace & navigational aids with live examples
AAE019.15	Understanding different cases in airline industry.

TUTORIAL QUESTION BANK

UNIT - I				
INTRODUCTION				
Part - A (Short Answer Questions)				
S.NO	QUESTIONS	Blooms Taxonomy Level	Course Outcomes	Course Learning Outcomes
1	What is Aviation?	Understand	CO 1	AAE019.04
2	What are the strength in the SWOT analysis of Air india?	Understand	CO 1	AAE019.04
3	What is AAI in Indian Aviation?	Remember	CO 1	AAE019.02
4	What are the Major Roles of AAI?	Understand	CO 1	AAE019.04
5	What is Noise pollution?	Understand	CO 1	AAE019.04
6	Explain the Effects of noise on humans	Understand	CO 1	AAE019.04
7	What are the Ground level air emissions?	Remember	CO 1	AAE019.04
8	Define an airline industry.	Understand	CO 1	AAE019.04
9	What is Aviation Management?	Remember	CO 1	AAE019.04
10	Explain the Weaknesses in the SWOT analysis of Air India.	Understand	CO 1	AAE019.03
Part - B (Long Answer Questions)				
1	Briefly explain the history of aviation in India.	Understand	CO 1	AAE019.01
2	List the top 10 largest airlines in India.	Understand	CO 1	AAE019.01
3	Explain SWOT analysis.	Remember	CO 1	AAE019.04
4	What are the SWOT analysis different factors?	Understand	CO 1	AAE019.02
5	What is SWOT analysis of Air India?	Remember	CO 1	AAE019.02
6	What are the New airport development plans?	Understand	CO 1	AAE019.02
7	What are the Greenfield Airports.	Remember	CO 1	AAE019.04
8	Explain the future of the aviation industry.	Understand	CO 1	AAE019.02
9	Explain about Competition in Airline industry,	Remember	CO 1	AAE019.02
10	Explain Modernization of existing airports in Delhi & Mumbai	Understand	CO 1	AAE019.03
Part - C (Problem Solving and Critical Thinking Questions)				
1	What is the Market potential of Airline industry in India?	Remember	CO 1	AAE019.04
2	What is the Some major initiatives undertaken by the government?	Remember	CO 1	AAE019.04
3	Explain achievements of the government during FY18.	Understand	CO 1	AAE019.04
4	What are the investments in airport infrastructure?	Remember	CO 1	AAE019.04
5	What are the Current challenges in airline industry?	Remember	CO 1	AAE019.04
6	Explain, airline industry and how it can be categorized into four different and main Operations	Understand	CO 1	AAE019.04

7	Explain Airline Industry-Domestic & International from an Indian perspective.	Remember	CO 1	AAE019.04
8	Explain Emirates Airlines Growth and Incorporation.	Understand	CO 1	AAE019.04
9	What is the airport-terminal configuration?	Remember	CO 1	AAE019.04
10	Explain Modernization of Non-Metro Airports.	Remember	CO 1	AAE019.04

UNIT-II

AIRPORT INFRASTRUCTURE AND MANAGEMENT

Part – A (short answer questions)

1	What are the Passenger Handling?	Understand	CO 2	AAE019.05
2	What is Digging Deeper in to operational control?	Understand	CO 2	AAE019.06
3	What is Air Cargo?	Understand	CO 2	AAE019.07
4	What are AOCC organization?	Remember	CO 2	AAE019.07
5	What is Passenger Baggage?	Understand	CO 2	AAE019.06
6	What is IT Implementation?	Remember	CO 2	AAE019.08
7	What are small airlines and organizational structure?	Remember	CO 2	AAE019.06
8	Explain what is Airport Security and what are the usages?	Remember	CO 2	AAE019.06
9	What is HRD Training?	Understand	CO 2	AAE019.07
10	What are the limitations of functional structures?	Remember	CO 2	AAE019.08

Part - B (long answer questions)

1	Explain Airport operations.	Understand	CO 2	AAE019.05
2	What are the Corporate Structure of Southwest Airlines	Understand	CO 2	AAE019.05
3	What is the typical structure of an airline industry company?	Understand	CO 2	AAE019.05
4	What are the AOCC roles?	Remember	CO 2	AAE019.06
5	What is airport authority of india?	Understand	CO 2	AAE019.07
6	What is the Air Navigation Services	Remember	CO 2	AAE019.06
7	Explain Corporate structure and chains of command.	Remember	CO 2	AAE019.06
8	What are the functions of AAI?	Remember	CO 2	AAE019.08
9	What is airline privatization?	Understand	CO 2	AAE019.08
10	What are Aerodrome Facilities?	Understand	CO 2	AAE019.08

Part – c (problem solving and critical thinking)

1	Explain Gradual Privatization of Lufthansa.	Understand	CO 2	AAE019.05
2	What are Foreign Ownership Challenges?	Understand	CO 2	AAE019.05
3	Explain Partial Privatization of Kenya Airways,	Remember	CO 2	AAE019.07
4	Explain Airport privatization with example.	Understand	CO 2	AAE019.07
5	Explain Airport organization of international service.	Remember	CO 2	AAE019.07
6	What is the difference between Airports and airport systems ?	Understand	CO 2	AAE019.08
7	Explain Airport privatization of Mexico .	Understand	CO 2	AAE019.08

8	What are Pension Troubles of current industries?	Remember	CO 2	AAE019.08
9	Explain Airport administration in detail.	Understand	CO 2	AAE019.07
10	Explain Full privatization with one example.	Understand	CO 2	AAE019.07

UNIT-III

AIR TRANSPORT SERVICES

Part - A (short answer questions)

1	What are Commercial Service Airports?	Understand	CO 3	AAE019.09
2	What is an Airline or Volaris?	Understand	CO 3	AAE019.09
3	What are Basic Service Airports and how it is designed?	Remember	CO 3	AAE019.10
4	What is Initial Airline?	Understand	CO 3	AAE019.10
5	What are Enhanced Service Airports?	Understand	CO 3	AAE019.10
6	What is Final Airline?	Remember	CO 3	AAE019.11
7	What are Air Transportation Services?	Understand	CO 3	AAE019.09
8	What are the Basic Service Airports?	Remember	CO 3	AAE019.09
9	What is Selling Airline?	Understand	CO 3	AAE019.10
10	What are General Service Airports?	Remember	CO 3	AAE019.13
11.	What are Local Service Airports?	Understand	CO 3	AAE019.09
12	Write few words about Selling airline service.	Understand	CO 3	AAE019.09
13	What re the medical requirements for passengers?	Remember	CO 3	AAE019.10
14	Write the process for interlineal flights.	Understand	CO 3	AAE019.10
15	What are the damages or losses after the baggages are checked?	Understand	CO 3	AAE019.10
16	What do you mean by fares and how varies?	Remember	CO 3	AAE019.11
17	Write about volaris information and advertising.	Understand	CO 3	AAE019.09
18	What is difference between judiction and volaris?	Remember	CO 3	AAE019.09
19	In case of overbooking, volaris has right to?	Understand	CO 3	AAE019.10
20	Write about delays of international air transportation service.	Remember	CO 3	AAE019.13
21	What volaris does not recommend the transportation?	Remember	CO 3	AAE019.09

Part – B (long answer questions)

1	Explain Passengers with special needs.	Remember	CO 3	AAE019.09
2	Explain Baggage damage or loss.	Understand	CO 3	AAE019.11
3	Definition of aviation ticket taxes.	Understand	CO 3	AAE019.10
4	Explain Delays, Legal cases on aviation ticket taxes.	Understand	CO 3	AAE019.10
5	Explain the Roles of the Public and Private Sector.	Understand	CO 3	AAE019.10



1	Explain Over booked or cancelled flights For International Flights.	Remember	CO 3	AAE019.11
2	Explain rates and tariffs of airport.	Understand	CO 3	AAE019.12
3	Explain An overview of Airport in Delhi.	Understand	CO 3	AAE019.12
4	Explain Passenger Terminal Building – Highlights.	Remember	CO 3	AAE019.12
5	Explain An overview of Airport in Hyderabad.	Understand	CO 3	AAE019.12
Part – C (Problem Solving and Critical Thinking)				
1	Give An overview of Airport in Mumbai	Remember	CO 3	AAE019.11
2	How Airside and Landside works	Understand	CO 3	AAE019.10
3	Explain Design Principle, Dutch Aviation Tax	Remember	CO 3	AAE019.11
4	Explain ATC tower in detail.	Understand	CO 3	AAE019.09
5	Explain about different types of runways.	Remember	CO 3	AAE019.10
1	Give An overview of Airport in Bangalore	Understand	CO 3	AAE019.11
2	What are the Roles of Airport Operators?	Understand	CO 3	AAE019.12
3	Explain Overbooked or Cancelled Flights	Remember	CO 3	AAE019.11
4	What are the Ticket taxes worldwide?	Understand	CO 3	AAE019.12
5	What is the airport development fees?	Understand	CO 3	AAE019.12
UNIT-IV				
INSTITUTIONAL FRAMEWORK				
Part – A (short answer questions)				
1	What are the Functions of DGCA?	Understand	CO 4	AAE019.14
2	What is CDR and abbreviate?	Remember	CO 4	AAE019.14
3	What are the simulation realism?	Understand	CO 4	AAE019.14
4	How DGCA performs these functions through the following Directorates?	Understand	CO 4	AAE019.15
5	What is DSR and abbreviate DSR?	Remember	CO 4	AAE019.14
6	What is (MERR)?	Understand	CO 4	AAE019.14
7	What is (TSSF)?	Understand	CO 4	AAE019.16
8	What re the five baseline questionnaires?	Remember	CO 4	AAE019.16
9	What are the test plans?	Understand	CO 4	AAE019.14
10	What is FACO?	Remember	CO 4	AAE019.14
Part – B (long answer questions)				
1	What are the functions of DGCA.	Understand	CO 4	AAE019.14
2	Explain Methodology followed by ATC.	Understand	CO 4	AAE019.14
3	Explain Schedules and Rotation.	Remember	CO 4	AAE019.14
4	What are Laboratory Plat forms.	Remember	CO 4	AAE019.14
5	Explain Data System baselines.	Remember	CO 4	AAE019.15

6	Explain Mobile Experimental Recording Rack (MERR) in detail.	Understand	CO 4	AAE019.14
7	Explain Usability Assessment (UA).	Remember	CO 4	AAE019.16
8	Explain responsibilities and functions of the DGCA.	Understand	CO 4	AAE019.16
9	Explain Data Analysis and Reduction Tool (DART).	Understand	CO 4	AAE019.14
10	Explain Quality Assurance.	Understand	CO 4	AAE019.14

Part – C (problem solving and critical thinking)

1	Explain Continuous Data Recording.	Understand	CO 4	AAE019.14
2	Explain Target Generation Facility.	Remember	CO 4	AAE019.14
3	Explain ATC system.	Understand	CO 4	AAE019.14
4	Explain DGCA methodology.	Remember	CO 4	AAE019.14
5	Explain the Terminal Simulation Support Facility	Understand	CO 4	AAE019.14
6	What are the Facility Control Office (FACO)?	Remember	CO 4	AAE019.14
7	Write about Methodology for Comparing Systems and Operational Review Team.	Remember	CO 4	AAE019.14
8	Explain Display System Replacement Laboratory.	Understand	CO 4	AAE019.15
9	What is National Air Traffic Controllers Association.	Remember	CO 4	AAE019.16
10	What is the process of human factors evaluations that can be conducted once the system engineering baseline is available.	Remember	CO 4	AAE019.17

UNIT-V

CONTROLLING

Part - B (short answer questions)

1	Define role of air traffic control.	Remember	CO 5	AAE019.18
2	What is use of the Microwave Landing System (MLS)?	Understand	CO 5	AAE019.18
3	What are the major disadvantage of VOR?	Remember	CO 5	AAE019.18
4	What are the Two technologies of ATC?	Understand	CO 5	AAE019.18
5	What is (VOR) transmitters?	Understand	CO 5	AAE019.18
6	What is Mumbai-Duty Free Retail Deal?	Remember	CO 5	AAE019.18
7	What is Augmented Reality?	Understand	CO 5	AAE019.18
8	Abbrivate (ILS).	Remember	CO 5	AAE019.19
9	What is Delhi-Duty Free Retail Deal	Understand	CO 5	AAE019.19
10	What are the high airport charges?	Remember	CO 5	AAE019.19

Part - B (long answer questions)

1	Explain ATC system improvements proposed by FAA.	Understand	CO 5	AAE019.18
2	Explain Landing Aids, Commercialization/privatization.	Understand	CO 5	AAE019.18
3	What are private sector airlines.	Understand	CO 5	AAE019.18
4	What are the challenges faced by indian aviation industry?	Understand	CO 5	AAE019.18
5	What are the VTOL (Vertical Take-off and Landing) challenges?	Understand	CO 5	AAE019.18
6	What are the navigational aids?	Remember	CO 5	AAE019.18

7	Explain six cases in the airline industry.	Understand	CO 5	AAE019.19
8	Explain Privatization of Delhi and Mumbai.	Remember	CO 5	AAE019.18
9	Explain airline new distribution capability.	Understand	CO 5	AAE019.18
10	What are conditions for VFR explain in detail.	Understand	CO 5	AAE019.18
Part – C (Problem Solving and Critical Thinking)				
1	Explain provision of air navigation service.	Understand	CO 5	AAE019.18
2	Explain navy Mumbai trending process.	Remember	CO 5	AAE019.19
3	What are traffic elements?	Understand	CO 5	AAE019.19
4	Explain Case study in airline industry.	Remember	CO 5	AAE019.19
5	What are Conventional control techniques	Understand	CO 5	AAE019.19
6	Explain Airport surveillance radar.	Remember	CO 5	AAE019.18
7	What are Flight service stations.	Remember	CO 5	AAE019.18
8	Explain in detail about challenges faced by airline industry?	Understand	CO 5	AAE019.20
9	Explain new concepts of aviation.	Remember	CO 5	AAE019.20
10	Explain about the radio technologies.	Remember	CO 5	AAE019.19

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