

Hall Ticket No

Question Paper Code: AAE019



INSTITUTE OF AERONAUTICAL ENGINEERING
(Autonomous)
Dundigal, Hyderabad - 500 043

MODEL QUESTION PAPER - I

B. Tech VIII Semester End Examinations, May – 2020

Regulations: IARE - R16

AVIATION MANAGEMENT
(AERONAUTICAL ENGINEERING)

Time: 3 hours

Max. Marks: 70

Answer ONE Question from each Unit

All Questions Carry Equal Marks

All parts of the question must be answered in one place only

UNIT – I

1. a) Explain briefly about history of Airport authority of India in Indian aviation and what are the major roles of AAI. [7M]
b) Discuss about SWOT analysis of different factors.(a)Explain the Weaknesses in the SWOT analysis of Air India. (b)Explain the strength in the SWOT analysis of Air India. [7M]
2. a) Write about ten largest airlines in India and competitions between those airline industries. [7M]
b) Explain about the modernization of existing airports in Delhi and Mumbai and write the difference between the both the airports and how it designed. [7M]

UNIT – II

3. a) Explain the limitations of functional structures and corporate structure of the south west airlines. And also write about the chains of command. [7M]
b) Discuss about the passenger handling and passenger baggage and write the difference between them. [7M]
4. a) Discuss the roles of Airport Operations Control Centre and organization of AOCC. [7M]
b) Discuss about airport operations and how the operations are controlled and managed by the airport systems. [7M]

UNIT – III

5. a) Write Short note on the following: (a) initial airline (b) selling airline (c)final airline. [7M]
b) Write short notes on the following of airports.(a)general service airports (b)local service airport(c)basic service airport(d)enhances service airport. [7M]
6. a) Explain the roles of public sector and private sector of the airport with the examples [7M]

- b) Explain the importance of medical requirements for the passengers in the flying conditions in case of emergency needs. [7M]

UNIT – IV

7. a) Explain the methodologies followed by the air traffic control and the air traffic control systems. [7M]
- b) Describe the methodology for air traffic control comparing systems and Operational Review Team. [7M]
8. a) Explain the methodology for Directorate General of Civil Aviation (DGCA) and write about the functions followed by the DGCA. [7M]
- b) Explain Data Analysis and Reduction Tool (DART) and Facility Control Office (FACO). [7M]

UNIT – V

9. a) What is the major disadvantage of advantages of VOR. Explain in detail about VOR transmitters. [7M]
- b) Explain ATC system improvements proposed by FAA what are the new concepts of aviation. [7M]
- 10 a) Explain in detail about challenges faced by airline industry and high airport charges and terminal simulation support facilities. [7M]
- b) Explain the challenges faced by the VTOL (Vertical Take-off and Landing). [7M]



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AVIATION MANAGEMENT

COURSE OBJECTIVES

The course should enable the students to:

S. No	Description
I	Understand about the history of aviation, major players 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):

CO 1:	Gain knowledge about Airline industry and Analysis of different market potential.
CO 2:	Understand Airport planning different types of privatizations.
CO 3:	Understand the importance and role of private operators.
CO 4:	Identify the methodology followed by ATC & DGCA.
CO 5:	Understand the role of air traffic control and the navigational aids.

COURSE LEARNING OUTCOMES (CLOs):

Students, who complete the course, will be able to demonstrate the ability to do the following	
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.

MAPPING OF SEE – COURSE OUTCOMES

SEE		Course Learning Outcomes		Course Outcomes	Blooms Taxonomy Level
Question No					
1	a	AAE019.04	Explain Air Traffic Services Describe the history and development of Air Traffic Services(ATS).	CO 1	Understand
	b	AAE019.02	Understand airport system planning, airport master plan, airport lay outplan.	CO 1	Understand
2	a	AAE019.04	Explain Air Traffic Services Describe the history and development of Air Traffic Services(ATS).	CO 1	Remember
	b	AAE019.04	Explain Air Traffic Services Describe the history and development of Air Traffic Services(ATS).	CO 1	Remember
3	a	AAE019.05	Differentiate between private airports and public use airports, commercial service airports and primary commercial service airports.	CO 2	Remember
	b	AAE019.08	Explain construction of runway and taxiway and aprons as per geometric design for all parameters.	CO 2	Understand
4	a	AAE019.07	Describe airport layout incorporating its different features navigation Explain air traffic rules and procedures.	CO 2	Remember
	b	AAE019.07	Describe airport layout incorporating its different features navigation Explain air traffic rules and procedures.	CO 2	Understand
5	a	AAE019.09	Define the requirements of terminal area as per drawing, design and describe the visual aids for air traffic control system.	CO 3	Remember
	b	AAE019.11	Understanding the Various Airport services-international air transport services – Indian Scenario	CO 3	Understand
6	a	AAE019.11	Understanding the Various Airport services-international air transport services – Indian Scenario	CO 3	Understand
	b	AAE019.11	Understanding the Various Airport services-international air transport services – Indian Scenario	CO 3	Remember
7	a	AAE019.14	Knowledge on the role of air traffic control in airspace & navigational aids with live examples	CO 4	Remember
	b	AAE019.15	Understanding different cases in airline industry.	CO 4	Understand
8	a	AAE019.09	Define the requirements of terminal area as per drawing, design and describe the visual aids for air traffic control system.	CO 4	Remember
	b	AAE019.11	Understanding the Various Airport services-international air transport services – Indian Scenario	CO 4	Understand
9	a	AAE019.11	Understanding the Various Airport services-international air transport services – Indian Scenario	CO 5	Remember
	b	AAE019.11	Understanding the Various Airport services-international air transport services – Indian Scenario	CO 5	Understand
10	a	AAE019.14	Knowledge on the role of air traffic control in airspace & navigational aids with live examples	CO 5	Remember
	b	AAE019.15	Understanding different cases in airline industry.	CO 5	Understand

Signature of Course Coordinator

HOD, AE