

Name:

Enrolment No:



UNIVERSITY OF PETROLEUM AND ENERGY STUDIES  
Online End Semester Examination, May 2021

Course : Airport Operations Management  
Programme : MBA (AVM)  
Course Code: TRAV 8008

Semester: IV  
Time: 03 hrs.  
Max. Marks: 100

Instructions: All questions are compulsory

SECTION A (30 Marks)

1. Each Question will carry 5 Marks
2. Answer the following questions pointwise strictly.

S. No.	Questions	Marks	CO																
Q 1	Which Annex of ICAO outlines the airport noise abatement recommendations? A. Annex 16 - Environment Protection B. Annex 2 - Rules of the Air C. Annex 14 - Aerodrome Design D. Annex 19 - Safety Management	5	CO4																
Q 2	List any three factors that affect nature of traffic peaks at an airport?	5	CO1																
Q 3	<p><i>Table 1 Relationship between TPHP and total annual passengers for US airports</i></p> <table border="1"><thead><tr><th>Total Annual Passengers</th><th>TPHP as a Percentage of Annual Flows</th></tr></thead><tbody><tr><td>30 million and over</td><td>0.035</td></tr><tr><td>20,000,000–29,999,999</td><td>0.040</td></tr><tr><td>10,000,000–19,999,999</td><td>0.045</td></tr><tr><td>1,000,000–9,999,999</td><td>0.050</td></tr><tr><td>500,000–999,999</td><td>0.080</td></tr><tr><td>100,000–499,999</td><td>0.130</td></tr><tr><td>Under 100,000</td><td>0.200</td></tr></tbody></table> <p>Source: FAA.</p> <p>Given the relationship between Typical peak hour passengers (TPHP) and Total Annual Passengers are given by the Federal Aviation Administration (FAA) for US airports, what would be the TPHP (in number of passengers per hour) for an airport that has 27 million passengers per annum?</p>	Total Annual Passengers	TPHP as a Percentage of Annual Flows	30 million and over	0.035	20,000,000–29,999,999	0.040	10,000,000–19,999,999	0.045	1,000,000–9,999,999	0.050	500,000–999,999	0.080	100,000–499,999	0.130	Under 100,000	0.200	5	CO1
Total Annual Passengers	TPHP as a Percentage of Annual Flows																		
30 million and over	0.035																		
20,000,000–29,999,999	0.040																		
10,000,000–19,999,999	0.045																		
1,000,000–9,999,999	0.050																		
500,000–999,999	0.080																		
100,000–499,999	0.130																		
Under 100,000	0.200																		
Q 4	List three advantages of Common User Terminal Equipment (CUTE)	5	CO1																

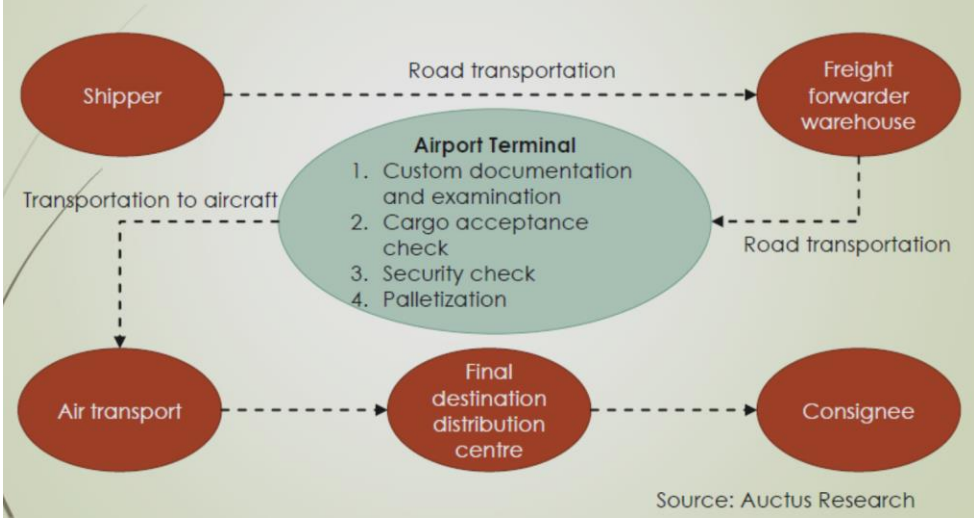
Q 5	The performance of baggage handling system is measured in short-landed rate which is defined as _____.	5	CO3
Q 6	1. Which of the following is a disadvantage of shipping air cargo in Unit Load Device (ULD)? A. Temperature control for perishable cargo B. Easy land transport and loading into aircraft as opposed individual bags or packages. C. Segregation of bags based on final destination resulting in poor utilization of space D. Providing more support to the cargo during handling	5	CO3

**SECTION B ( 50 Marks)**

**1. Each question will carry 10 marks**

**2. Instruction: Answer precisely, write legibly and stepwise.**

Q 7	Explain with examples the desirability of different types of passenger building configurations adopted by airport operators.	10	CO1
Q 8	What is Level of Service? How is it defined for passenger terminal buildings? When does Level of Service change for a given passenger terminal building in various service area of the building and during peak and off-peak hours?	10	CO1
Q 9	List four international organizations that benchmark airports. What aspects of airport operations management do each of them benchmark?	10	CO4
Q 10	List five types of vehicles used on the apron for providing airside services. What purpose do each of these vehicles serve?	10	CO2

Q 11	 <p align="center">Source: Auctus Research</p> <p align="center"><i>Figure 1 Air cargo process flow diagram</i></p> <p>In the above figure displaying the air cargo handling process, explain the four activities that take place at the airport's cargo terminal.</p>	10	CO3
------	--	----	-----

SECTION-C ( 20 marks)

1. Read the following caselet carefully.

2. Instruction: Solve systematically showing sample calculations and write legibly.

Q 12

*Kansas City International Airport is in the middle of a battle to build a new, badly needed state-of-the-art terminal. The current three-terminal facility was designed in the 1960s and opened in 1972 during a time before baggage screening was required and increased security was the norm. Bloomberg Business named the airport among the 10 least-favorite facilities as determined by frequent travelers.*



Figure 2 Kansas City Airport terminal buildings and runway layout

*In December, the Aviation Department reported that 10.4 million passengers traveled through the airport in 2015, up 3 percent year over year. The airport also received new flights from Frontier Airlines and Allegiant Air, along with increased frequencies and new destinations from existing carriers.*

*In 2011, Aviation Director Mark VanLoh sparked a discussion on the airport's future after noting that the current three-terminal configuration was becoming inefficient and outdated. This was during a time when airlines were merging and airports across the country were building more efficient and technologically advanced terminals. While most of the power players in the city agree that something needs to be done about the airport, there are differing views on how to do it.*

*The last two airport master plans recommended building a new, single terminal. The city council approved an 18-month study to validate and guide the design of a new single terminal and recommended that it be built. The Mayor's Airport Terminal Advisory Group also determined that a new single terminal was the best option. Both groups felt the existing terminals are not configured in a way that offers the best passenger experience for residents and visitors.*

*But some members of the community and a few government officials are opposed to building a new terminal, instead preferring to renovate the facility, which is forecast to cost more than new design/build. Airport officials have said that renovation is not an option, and tenant airlines, including Southwest, agree. The Greater Kansas City*

20

CO 1,  
CO 3,  
CO 4

*Chamber of Commerce is also a supporter of the single terminal, noting it was the best option for passenger safety and convenience.*

*The Aviation Department has emphasized that no taxpayer dollars would be used to build the new terminal. It will be funded via Passenger Facility Charges, concessions revenues, Airport Improvement Program grants and revenue bonds. And when the time comes, the department will be able to pay for the terminal after Moody's Investors Service revised to positive the outlook on the airport's bonds in June 2015.*

*But the ratings agency also warned that the airport's 'financial flexibility' is constrained due to low average concession revenues, which the Aviation Department believes is due to the decentralized terminal layout and limited room for traveler concessions inside security.*

*A solution could be coming soon, as the city's Aviation Department is working with its airlines on a plan, with results expected to be unveiled in May. Here's hoping that sensible heads will prevail and allow the city to build a next generation terminal that will offer a better passenger experience for visitors and residents.*

Based on the information provided in the above news article, answer the following questions in 5-7 sentences (5 marks each):

- A. What are the reasons for poor feedback from air passengers for the Kansas City airport?
- B. Why is there a need for a new terminal building at the Kansas City airport?
- C. Who will pay for the construction of new terminal building, if it is approved by the authorities?
- D. In your opinion, what should be done – renovation of existing terminal buildings or construction of a new terminal building? Give reasons in the context of airport operations management considering airside and cityside operations as well as passenger satisfaction.