Seat No.: _____   Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY
MBA - SEMESTER– I EXAMINATION – WINTER 2019

Subject Code: 4519206   **Date: 27-12-2019**
Subject Name: Management Information Systems
Time: 10:30 AM TO 1.30 PM   **Total Marks: 70**
Instructions:
1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1 Explain   **14**
        (a) Business Process
        (b) Disruptive Technologies
        (c) Mass Customization
        (d) Product Differentiation
        (e) CRM
        (f) Extranets
        (g) Virtual Company

Q.2 **(a)** How do systems serve the various levels of Management in a business? **07**
    (b) Explain how information system promote synergies and core competencies? **07**

OR

    (b) Explain how intranets and extranets help firms integrate information and business process? **07**

Q.3 **(a)** What is the difference between E-Business, E-Commerce and E-Government? **07**

    (b) Can computers think? Will they ever be able to? Why or why not? **07**

OR

Q.3 **(a)** Explain various Functional Business Systems with the help of examples. **07**

    (b) Explain CRM system of any Bank / Educational Institute / Retail Business / Hotel (Choose any one) **07**

Q.4 **(a)** Write a note on Information Security giving examples. **07**

    (b) Explain Ethical responsibilities of C Suite positions with reference to IS. **07**

OR

Q.4 **(a)** Explain uses and benefits of IOT. **07**
    (b) How organization and IS Interdependent? Explain. **07**

Q.5   **TOO MANY BUMPED FLIERS: WHY?**
        In a seemingly simpler and less hectic time, overbooked flights presented an opportunity. Frequent travelers regularly and eagerly chose to give up their seats and delay their departures by a few hours in exchange for rewards such as a voucher for a free ticket.
        Today, fewer people are volunteering to give up their seats for a flight because there are fewer and fewer seats to be bumped to. Airlines are struggling to stay in business and look to save costs wherever possible. They are scheduling fewer flights and those

flights are more crowded. Instead of delaying his or her trip by a few hours, a passenger that accepts a voucher for being bumped may have to wait several days before a seat becomes available on another flight. And passengers are being bumped from flight involuntarily more often.

Airlines routinely overbook flights to compensate for the millions of no-shows that cut into expected revenue. The purpose of overbooking is not to leave passengers without a seat, but to come as close as possible to filling every seat on every flight. The revenue lost from an empty seat is much greater than the cost of compensating a bumped passenger. Airlines are much closer today to filling every seat on flights than at any point in their history. The problem is, the most popular routes often sell out, so bumped passengers may be stranded for days.

The airlines do not approach overbooking haphazardly. They employ young, sharp minds with background in math and economics as analysts. The analysts use computer modeling to predict how many passengers will fail to show up for a flight. They recommend overbooking based on the numbers generated by the software.

The software used by US Airways, for example, analyzes the historical record of no-shows on flights and looks at the rate at every fare level available. The lowest-priced fares are generally nonrefundable, and passengers at those fare levels tend to carry their reservations through. Business travelers with the high-priced fares no-show more often. The software examines the fare people are booking on each upcoming flight and takes other data into account, such as the rate of no-show on flights originating from certain geographic regions. Analysts then predict the number of no-shows on a particular flight, based on which fares passengers have booked, and overbook the flight accordingly.

Of course, the analysts don't always guess correctly. And their efforts may be hampered by a number of factors. Ticket agents report that faulty computer algorithms result in miscalculations. Changes in weather can introduce unanticipated weight restrictions. Sometimes a smaller plane is substituted for the scheduled plane. All of these circumstances result in fewer seats being available for the same number of passengers, which might have been set too high already.

Regardless of how much support the analysts have from airline management, gate attendants complain because they are the ones who receive the brunt of overbooked passengers' wrath. Attendants have been known to call in sick to avoid dealing with the havoc caused by overbooked flights.

Some gate attendants have gone as far as creating phony reservations, sometimes in the name of airlines executives or cartoon characters, such as Mickey Mouse, in an effort to stop analysts from overbooking. This tactic may save the attendants some grief in the short term, but their actions often come back to haunt them. The modeling software counts the phony reservations as no-shows, which leads the analysts to overbook the flight even more the next time. Thomas Trenga, vice president for revenue management at US Airways, refers to this game of chicken as "the death spiral." US Airways discourages the practice of entering phony reservations.

With fewer passengers volunteering to accept vouchers, tensions often escalate. The number of passengers bumped involuntarily in 2006 rose 23 percent from the previous year and has continued to rise. The encouraging statistic is that only 676, 408 of the 555 million people who flew in 2006 were bumped, voluntarily or involuntarily.

W. Douglas Parker, CEO of US Airways, said that airlines have to overbook their flight as long as they allow passengers to no-show without penalty. US Airways has a no-show rate of 7 and 8 percent. US Airways claimed that overbooking contributed to at least $1 billion of its 2006 revenue of $ 11.56 billion. With a profit of only $ 304 million, that extra revenue was critical to the survival of the business. Some, airlines, such as JetBlue, have avoided the overbooking controversy by offering only non-refundable tickets. No-shows cannot reclaim the price of their tickets. Business travelers often buy the most expensive seats, but also want the flexibility of refundable tickets, so JetBlue is considering a change in this policy.

The airlines are supposed to hold their analysts accountable for their work, but they are rarely subject to critical review. Some analysts make an effort to accommodate the wishes of the airport workers by finding a compromise in the overbooking rate. Unfortunately, analysts often leave their jobs for new challenges once they become proficient at overbooking.

Q.5 (a) Is the decision support system being used by airlines to overbook **07** flights working well? Answer from the perspective of the airlines and from the perspective of customers.

(b) What people, organization, and technology factors are responsible for **07** excessive bumping problems?

OR **07**

Q.5 (a) What are the inputs, processes, and outputs of this DSS?

Q.5 (b) How much of this is a "people" problem? Explain your answer. **07**

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