Home Work:

1. a. Discuss the following Airline Profit Strategies intended benefits and potential pitfalls
   i. Cutting Fares/ Yields
   ii. Increasing Fares/ Yields
   iii. Increase Flights (ASM)
   iv. Decrease Flights (ASM)
   v. Improve Passenger Service Quality
   vi. Reduce Passenger Service Quality

   b. i. Which strategy would be favorable, given a Price Elasticity of Demand of -.8 (Ep = -.8)
   ii. Which strategy would be favorable, given a Price Elasticity of Demand of -1.2 (Ep = -1.2)

2. Given the following Airline Market Example, Calculate the following:

<table>
<thead>
<tr>
<th>Market</th>
<th>Itinerary</th>
<th>Segment / Leg</th>
<th>Airline</th>
<th>Seats</th>
<th>PAX</th>
<th>Connect PAX</th>
<th>Traffic Connect</th>
<th>% Connecting</th>
<th>Load Factor</th>
<th>Daily Freq</th>
</tr>
</thead>
<tbody>
<tr>
<td>IAD-BOS</td>
<td>IAD-BOS</td>
<td>IAD-BOS</td>
<td>Airline 1</td>
<td>200</td>
<td>140</td>
<td>N/A</td>
<td>50</td>
<td>N/A</td>
<td>0.70</td>
<td>3</td>
</tr>
<tr>
<td>IAD-BOS</td>
<td>IAD-PHL</td>
<td>IAD-PHL</td>
<td>Airline 1</td>
<td>150</td>
<td>125</td>
<td>75</td>
<td>50</td>
<td>75%</td>
<td>0.83</td>
<td>5</td>
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<tr>
<td>IAD-BOS</td>
<td>IAD-PHL</td>
<td>PHL-BOS</td>
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<td>75</td>
<td>N/A</td>
<td>75</td>
<td>N/A</td>
<td>0.50</td>
<td>5</td>
</tr>
<tr>
<td>IAD-BOS</td>
<td>IAD-JFK</td>
<td>IAD-JFK</td>
<td>Airline 2</td>
<td>250</td>
<td>200</td>
<td>100</td>
<td>100</td>
<td>50%</td>
<td>0.80</td>
<td>7</td>
</tr>
<tr>
<td>IAD-BOS</td>
<td>IAD-JFK</td>
<td>JFK-BOS</td>
<td>Airline 2</td>
<td>150</td>
<td>100</td>
<td>N/A</td>
<td>100</td>
<td>N/A</td>
<td>0.67</td>
<td>7</td>
</tr>
<tr>
<td>IAD-BOS</td>
<td>IAD-BOS</td>
<td>IAD-BOS</td>
<td>Airline 2</td>
<td>100</td>
<td>80</td>
<td>N/A</td>
<td>80</td>
<td>N/A</td>
<td>0.80</td>
<td>2</td>
</tr>
<tr>
<td>IAD-PIT</td>
<td>IAD-BOS</td>
<td>IAD-BOS</td>
<td>Airline 2</td>
<td>200</td>
<td>150</td>
<td>75</td>
<td>75</td>
<td>50%</td>
<td>0.75</td>
<td>4</td>
</tr>
<tr>
<td>IAD-PIT</td>
<td>IAD-PIT</td>
<td>BOS-PIT</td>
<td>Airline 2</td>
<td>150</td>
<td>75</td>
<td>N/A</td>
<td>75</td>
<td>N/A</td>
<td>0.50</td>
<td>4</td>
</tr>
</tbody>
</table>

   a. For this example no additional passengers are boarding at the connection
   b. Frequency Share for IAD-BOS =
   c. Market Share for IAD-BOS =
   d. “Market” O-D Traffic for IAD-BOS =
   e. “Segment” or “Leg” O-D Supply for IAD-BOS =
   f. RPM =
   g. ASM =
   h. ALLF for IAD-BOS =
   i. ALF for this network – for this example all flight legs are 1 unit of distance
3. For the Market Demand Function plot Demand (y-axis) versus Total Trip Time (x-axis) for the following example of the PHX-LAS Market:
   \[ D = M \times P^a \times T^b \]
   a. \( M = \) The Market sizing parameter is 200,000
   b. \( P = \) The average price of travel is $40
   c. \( T = \) Plot Demand versus Total Trip Time for Total trip time values of 40 through 70 minutes. (plot all 31 minutes).
   d. Plot 4 curves on the same graph for the four different types of travelers below:
      i. \( E_p = a = -.8, \ E_t = b = -.8 \)
      ii. \( E_p = a = -.8, \ E_t = b = -1.2 \)
      iii. \( E_p = a = -1.2, \ E_t = b = -.8 \)
      iv. \( E_p = a = -1.2, \ E_t = b = -1.2 \)
   e. Explain the differences between the curves from the perspective of the different segments of travel demand