Birla Institute of Technology and Science, Pilani 1 Semester 2023-24 Pricing Analytics MPBA G526 Comprehensive Examination

Date: 11-12-2023

Max. Time: 3 Hours

Max. Marks: 40

Q.1 What do you understand by consumer surplus? Discuss the importance of the concept of consumer surplus in deciding the appropriate pricing for any product. (1+2=3)

- Q.2 Demand for the Indian Railways full fare class from Delhi to Chennai route follows a continuous uniform distribution with minimum demand 130 and maximum demand 328 seats. A full fare class ticket costs INR 2450 and discounted fare class ticket cost is 1728. Determine the optimal protection level for the full fare class segment in this route. (3)
- Q. 3 Ramesh and Gopal want to book a car for 3 days from a taxi service provider located at IGI airport. The rate for one-day taxi booking is 3000 per day. Ramesh booked car using the taxi service provider's booking counter at the airport, while Gopal booked it through make my trip. Based on the information provided in the table below calculate the expected unit cost for both clients:

Cost Element	Units	Value	Description Commission paid to the travel agents	
Commission	INR	12%		
Transaction cost	INR/Rental	740	Paperwork, cleaning cost and other miscellaneous expenditure	
Daily Cost	INR/Day	1250	Wear and tear cost per day. Driver charges	

As per the historical data, Ramesh takes out the insurance when he rents the car while Gopal does not take any insurance. The net profit from the insurance for a three days' rental is 450 INR. Calculate the expected net contribution of renting the car for both the clients. (2+2=4)

Q. 4 Consider the following data from an airlines company relating to the flight tickets with four fare classes. The total number of seats in the flight are 150. Demand across each of the fare classes is assumed to follow a normal distribution with the following means and standard deviations:

Class	Fare	Mean	Standard Deviation
1	\$500	16,5	5.6
2	\$420	44.2	15
3	\$290	35.1	11.2
4	\$125		

Compute the EMSR-b protection levels for the three highest classes and also calculate the booking limit for each fare class.

(8)

- Q.5 Consider a hotel that offers one-night, two-night and three night products only. The resources for the hotel are the room nights and the products are combinations of arrival night and length of stay. Based on the above information develop a table of incidence variables for three different lengths of stay and a week of resources.
- Q.6 Define conjoint analysis? Conjoint analysis can be useful tool to decide the appropriate pricing for any products. Discuss. (1+2=3)
- Q. 7 Pricing laws are designed to protect consumers from any unscrupulous dealings by firms. List and discuss any three legal issues related to pricing.
- Q. 8 While deciding the prices, organizations need to consider various levels of price management.

 Discuss these levels with suitable examples.

 (3)
- Q. 9 A seller who is selling the woolen clothes has a price response function as d(p)=250-5p. The seller is planning to introduce the multi-period price using two, three and four periods. Calculate the optimal price in different period and analyze the changes in the profit from single pricing to the multi-period pricing. (5)
- Q. 10 What is price hedonism. Why it is important to use this concept to understand the market value of a certain categories of the product. (1+2=3)