



ECO 650: Final Exam 2019

December, 16th 2020

1 Bundling (10. pts)

The Multiplex Monroe offers access to three types of entertainments (Movie, Theater, Concert). The Multiplex Monroe only offers annual membership. Consumers fall into three types:

Consumers	10 Movies	3 Theater plays	3 Concerts
Type 1	100	90	80
Type 2	80	120	120
Type 3	70	150	100

On an annual basis, entertainments Theater and Concert each costs 15 per unit and access to the Movie theater costs 3 per unit. The firm cannot discriminate among consumers. To simplify, consider that there is 1 consumer of each type (1 and 2 and 3).

Questions:

1. Determine the best pricing strategy for Multiplex Monroe if it offers an annual card fee per entertainment type? (2 pts)
2. Determine the optimal price if Multiplex Monroe offers only a Gold card membership (Full access to all entertainments- pure bundling)? (2 pts)
3. Determine the optimal fee for any Silver access card (2-entertainments access card-mixed bundling)? (3 pts)

4. What is the best pricing strategy for Multiplex Monroe? Explain. (1 pt)
5. Why bundling strategies may be profitable? (2 pts).

2 Exercise 1 : Price as signal of quality- 10 pts

Suppose that a firm may produce a low quality good at marginal cost c_L or a high quality good at marginal cost c_H with $c_L, c_H < 1$. Consumer's demand is $Q(p, s^e) = 1 + s^e - p$ where s^e is the quality that consumers attribute to the good. We assume that $s^L = 0$ and $s^H = 1$.

1. Full Information: Determine the optimal prices set by a high (resp. low) quality firm when the quality is perfectly known by consumers.
2. Asymmetric Information: The firm's quality is not observed but consumers form beliefs about quality conditional on the price they observe. Determine the separating equilibrium in which a low quality firm sets p_L and a high quality firm sets \hat{p} . To do so assume that if $p \geq \hat{p}$, consumers believe the product to be of high quality.
 - a. Determine the incentive constraint of the low quality firm.
 - b. Determine the incentive constraint of the high quality firm.
 - c. Assume $c_L = 0$ and $c_H = \frac{1}{2}$. Determine the separating equilibrium and the corresponding profits. Comment.
 - d. Assume $c_L = \frac{1}{2}$ and $c_H = 0$. Determine the separating equilibrium and the corresponding profits. Comment.