Faculty of Economics and Business Universitas Indonesia (FEBUI)
Undergraduate Regular (S1 Regular) and
International Undergraduate Program (KKI)

Final Exam

Odd Semester 2018/2019

ECEU600101-Microeconomics 1 - E

Prof. Iwan Jaya Aziz

Maximum Time Allowed: 3 hours

No	Lecturer	Tutor
A	**S1 REGULER**	
1	Widyono Soetjipto	Andari C. Candrika
2	Willem Makaliwe (*English*)	Auliya D. Wiratama
3	M. Shauqie Azar (*English*)	M. Anggada P. Prabowo
4	Lydia Napitupulu (*English*)	M. Agung Lazuardi
5	**Iwan Jaya Aziz (*English*)**	**Fandy R./Nabil R. Ryandiansyah**
6	Ashintya Damayati/Niniek L. Gyat	Margaretha S.K. Herin
7	Tezza Napitupulu (*English*)	Giani Raras
8	Ninasapti Triaswati (*English*)	Yeremia Natanael
9	Widyanti Soetjipto	Wildan Al Kautsar Anky
10	Teguh Dartanto/Junichiro Takahata (*English*)	Sekar S.K. Joewono
B	**S1 KKI** (all in English)	
1	Maddaremmeng Panennungi	Jazman Ihsanuddin
2	Surjadi/Rahmatina A. Kasri	Evita M. Maharani
3	Kenny D. Indraswari	Isti M. Wuryandita
4	Qisha Quarina/Esther SAS Agustin	Habibulloh A. Negoro
5	Shahnaz Natasya	Aidah Magfira

Please answer all questions below. It is not allowed to use programmable calculator!

1. Pricing Strategy

Airline pricing is such that a full-fare paying passenger can be seated next to another passenger who paid much less for his/her ticket, even though each passenger is receiving the same quality of seat and in-flight services, regardless of the airfare each paid.

   a. Even though all passengers in a flight receive the same quality of seat and services, an airline is able to charge different prices for each passenger. What factors commonly used by an airline to differentiate prices charged to passengers? **(5 points)**

   b. Consumers of an airline company can be grouped into two groups, i.e. business travellers and regular travellers, each with a different price elasticity of demand. Using a graph show how the company differentiates airfare to be charged to each group of travellers. What degree of price discrimination applies in this case? **(5 points)**

   c. Firms with monopoly power can set the price of their products by using the golden rule of pricing:

$$P = \frac{MC}{(1 + 1/E)}$$

   where, P = price, MC = marginal cost, and E = price elasticity of demand market. Explain your understanding of the formula, particularly: **the condition it represents** and the **implication of it on the relationship between price and price elasticity of demand**! **(5 points)**

   d. Suppose for a certain flight, the price elasticity of demand of business travellers is E_b = -1.5, and the price elasticity of demand of regular travellers is E_r = -3.0. Meanwhile the total cost of running each flight is *TC = 50,000,000 + 200,000Q*. By using the formula in (c), determine the airfare to be charged to each group of travellers. **(10 points)**

2. Oligopoly Model

An industry consists of two firms with identical demand function $P = 100 - Q_T$, where $Q_T = q_1 + q_2$. Both firms have identical cost $C_i = 40q_i$, where *i = 1,2*. Both firms pay attention to the behavior of their competitor in determining the output produced, and both firms make their decision simultaneously (no one moves first).

   a. If both firms decide to compete in determining their outputs, find the profit maximizing *q* and *P* and calculate the profit of each firm! **(10 points)**

   b. If both firms collude and form a cartel and act as a monopolist, find the profit maximizing *q* and *P* and calculate the profit of each firm! **(5 points)**

   c. In one graph, show and compare the above competitive and collusive solutions. **(5 points)**

   d. In real life, which solution usually prevails? Compete or collude? Explain! **(5 points)**

3. **First & Second Theorem of Welfare And Externality**

   a. The first theorem of welfare economics (WE), which asserts that a competitive equilibrium is optimum, requires strong conditions that <u>exclude</u> almost completely the phenomena of *externality* especially with respect to consumers' preference relations. When the latter is taken into account, the resulting preference relations pose obstacles for a competitive process to achieve an optimal resource allocation as claimed by the first theorem of WE. One of the implications of the theorem's strong conditions is the assumption that the production possibility and the consumption possibility are *independent* of each other (the preference relations are independent of production activities). Focusing on this assumption, you are asked to show the limitation of the first theorem of WE by giving an example of externality that is highly relevant in today's environment that makes such an assumption unacceptable. Hint: Note that a large portion of consumers in today's economy is of the middle-class and more-informed type.

   b. The presence of externality does not pose a problem in the second theorem of WE. However, the theorem has its own problem related to the *efficiency* versus *equity* issues, and its condition/requirement makes it also less relevant in today's world. Explain the limitation and the problem of the second theorem of WE when put in real world context.

   c. Government action is not always needed to solve the problem of externalities which cause markets to be inefficient. Under certain circumstances, private solutions can also be used. Gives the types and examples of government solutions and private solutions, and explain by using the necessary Charts or Tables how government actions could affect outputs and prices, and how private actions, particularly the Coasian approach, could solve the externality problem.

4. **Public Goods and Welfare Distribution**

   a. Market failure is among the most important microeconomic concepts for understanding real world situation. One of the frequently observed in this context is what is known as "missing market," which reflects the failure to produce some goods and services despite being needed or wanted (demand exists but supply does not); e.g., national defense, police service, street lighting, etc. The extreme missing market is the pure public goods that clearly provide a benefit to the consumer but, for some reasons, are unlikely to exist in a market economy.

      i. Indicate the two main characteristics of public goods that distinguish them from private goods

      ii. Suppose it is widely believed that rural infrastructure as a public good is expected to benefit communities in two rural areas. Yet, the government (local, regional, and national) do not have the budget to build such infrastructure, the estimated cost of which is around Rp25,000,000. None of the communities can afford to pay that amount alone. Thus, if the public good is to be built, both communities have to jointly pay for it. Otherwise, the infrastructure will never be built. Suppose the pay-off received by rural community-1 if that public good is built is 55, and that received by rural community-2 is 30. You are asked to describe this situation in a game theory setting by using numerical numbers. Based on that

setting and the expected payoffs received by each rural society, show the presence of _multiple equilibria_ and explain how a "free-ride" problem in such multiple equilibria case can be avoided if public good is to be provided/built. Also, even if both communities are willing to contribute, show under what condition the rural infrastructure as public good will not be provided

b. The provision of public goods can also be associated with the equity issue due to the inability of poor communities to pay for the services provided by the private goods. Yet, the provision of such public goods is made possible only when it is financed through government budget or tax revenues. By using the indifference curve graphs with two goods, public and private goods, explain the impact on equity (welfare distribution between the rich and the poor communities) of two different tax regimes: the proportional tax and the uniform tax.