

國立臺北大學 108 學年度碩士班一般入學考試試題

系(所)組別：國際企業研究所

科 目：經濟學

第 1 頁 共 1 頁

可 不可使用計算機

I. (50%)

1. A monopolist uses one input, X , which she purchases at the fixed price $r=2$ to produce her output, Q . Her demand and production functions are $p=80-2q$ and $q=3\sqrt{x}$, respectively. Please determine the values of p , q , and x at which the monopolist maximizes her profit. (25%)
2. Assuming that Mr. Lee consumes three goods— hot dog, cake, and automobiles. Denote the quantities of these goods consumed by X_1, X_2 , and X_3 , respectively. Suppose that Mr. Lee's utility function is given by $U = 5 \log X_1 + 4 \log X_2 + \log(0.1 + X_3)$, that the prices of the goods are given by $P_1 = \$1, P_2 = \2 , and $P_3 = \$2000$, and that his total income is \$9000. Note that automobiles must be bought in discrete units (that is, X_3 must equal 0, 1, 2, and so on). Given these constraints, how will he allocate income so as to maximize utility? And what is the maximized utility Mr. Lee gains from this simple model? Please round your answers off to 2 decimal places. (25%)

II. (50%) Macroeconomics:

Short-Essay Questions: All questions may be answered in either English or Chinese. Please note that you are allowed to make necessary assumptions for conducting the analysis.

In March, 2018, the United States formally announced its approval of the 25% tariff on steel and 10 percent on aluminum. Mexico and Canada were granted initial exemptions. In April, 2018, China imposed tariffs of up to 25% on 128 American products. The United States further responded by announcing a \$50 billion in tariffs on some 1,300 products, including medical devices, aircraft parts and batteries. China then returned with a threat of tariffs on the products of soybeans, cars and chemicals; and added another \$50 billion in tariffs on American products. The U.S. position is that the tariffs are penalties for China stealing American technology and trade secrets.

1. Please explain export-biased growth and import-biased growth for China, respectively. (10%)
2. Please define the terms of trade for the U.S. and explain its relationship with the U.S. national welfare. (10%)
3. Based on the concepts of 1 and 2, is economic growth in China good for the national welfare in the U.S.? (10%)
4. Please find a theoretical argument for U.S. government to support the trade policy that The United States imposes the 25% and 10% tariff on steel and aluminum, respectively. Please also find a theoretical argument which does not support the U.S. trade policy that it imposes the 25% and 10% tariff on steel and aluminum, respectively. (10%)
5. Due to the fact that Taiwan has a close trading relationship with both U.S. and China, please graphically analyze the effect of the U.S. import tariff imposed on China steel and aluminum on the price level, the exchange rates, imports and exports in Taiwan. Is it good or bad for Taiwan economy? (10%)

試題隨卷繳交