

I. True or False (30 points, 3 pts each)

1. Consider a production possibility frontier with a constant slope. The vertical intercept is 30 desks and the horizontal intercept is 50 bulbs. The opportunity cost of increasing bulb output from 25 to 26 bulbs is 0.3 desks.
2. Sam found that a unit change in bread consumption caused the same percentage change in bread price. Then he concluded that the elasticity of bread demand is unit.
3. Mary is said to be risk neutral since she is indifferent between program A giving her \$5,000 for sure and program B giving her \$2,500 with probability of 0.4 or \$5,000 with probability of 0.6.
4. A government makes a public announcement that to achieve the maximum benefit of all societies is always the principle of policy-making. Then, the government officials make a decision of choosing to construct a power plan of \$ 50 million and a high way of \$50 million but make a decision of choosing to construct only two high ways of \$55 million each when the construction cost of a power plan is \$52 million. Therefore, the government does make the promise.
5. John is certainly rational since he makes a financial decision giving him \$20 million for current consumption and \$25 million in the next period when the market asks an intertemporal exchange rate of 3%.
6. The value added to a thunder broom 2002 should be \$300 by 3 musketeers' firm. The cost of making a broom consists of \$300 for dragon feather (hardly seen), \$150 for a branch of a magic willow (hardness is never told) and \$50 for secret potion of the Witch and Wizard craft laboratory (power is beyond imagination). Then, the 3 musketeers' firm sold it to an alley dealer for \$800 and then the dealer sold it to a customer for \$900.
7. The capital flow will happen and flow from country A to country B since the interest rate in country A is 5% while 5.5% in country B. Meanwhile, the economists report that the inflation rates are 3% in country A and 3.5% in country B, respectively.
8. The country J keeps reducing the interest rate consistently but improves the GDP in vain. This country could be in the liquidity trap.

9. Three financial consultants expect Yen to be ¥130, ¥135, and ¥129 for an US dollar, respectively, when the current exchange rate for Japanese yen is ¥125/US. It is recognized that there is positive relationship between Japanese yen and New Taiwan dollar. Therefore, we may expect the New Taiwan dollar to be NT\$35.5 for an US dollar when it is currently NT\$35/US.
10. The ratio of money supply to GDP increases but the nominal GDP remains at the same level. Consequently, the economy stays at the full employment condition.

II. Choose the BEST answer (30 points, 3 pts each)

1. Which of the following statement about perfect competition and monopoly is WRONG?
- The output of a monopoly tends to be smaller and the price tends to be higher than under perfect competition.
 - The loss of consumer surplus is totally transferred to producer's wealth as an economy shifts from perfect competition to monopoly.
 - Unlike firms in perfect competitive markets, monopolist faces a downward-sloped market demand curve.
 - A monopolist is not likely to produce at a price below average cost in the long-run.
2. Which of the following statement about currency depreciation is CORRECT?
- Currency depreciation will definitely promote export.
 - Currency depreciation is an effective way to reduce trade deficit.
 - Countries with higher depreciation are likely to expect depreciation.
 - Currency depreciation will increase national spending.
3. Which of the following statement about money supply and demand is WRONG?
- Lower interest rate pushes the money demand curve to the right.
 - For a vertical aggregate supply curve, the effect of increase in money supply would be minimal on real output.
 - Government often increases money supply to close the inflationary gap.
 - None of the above
4. Which of the following statement about international trade is WRONG?
- International trade permits specialization. And the pattern of trade is not determined by absolute advantage over other countries.
 - International trade improves national wealth as well as income inequality.
 - Specialization may also come from economies of scale, that is related with national endowments.
 - International trade is claimed to be important to economic growth because it serves as a effective channel to global knowledge pool.

5. Which of the following way will NOT be effective in controlling the agency costs?
- Restructure a larger portion of cash payment in managers' compensation.
 - Use equity shares as part of the bonus.
 - Use corporate bond as part of compensation
 - a and b
 - a and c
6. Which of the following statement about production is WRONG?
- To minimize the costs, the firm should combine inputs so that, for every input used, the marginal product of the input is proportional to its price.
 - When marginal product function is increasing, average product function is also increasing.
 - The input combination that minimizes firm's costs corresponds to the point on the isoquant that lies on the lowest isocost curve.
 - a and b
 - b and c
7. Which of the following statement about price movement is WRONG?
- High rate of inflation hurts lenders and investors of fixed-income securities.
 - Unlike inflation, deflation is generally beneficial to economy.
 - High inflation is always associated with low unemployment rate.
 - a and b
 - b and c
8. Which one will cause the demand curve of tires to shift out (right), assuming tires is a normal good?
- Price of cars goes down.
 - Income level increases.
 - Interest rate goes up.
 - Both a and b.
9. Which of the following statement about Oligopoly is CORRECT?
- There exist many producers in the market.
 - Interaction between producers is important in determining the market equilibrium price and quantity.
 - The market supply curve is horizontal.
 - The market demand curve is vertical.

- 10 When country A pegs its currency with US dollar,
- Foreign exchange risk is greatly reduced
 - The interest rate in country A will be affected by the action taken by US Federal Reserve.
 - The inflation rate in country A will be affected by the action taken by US Federal Reserve.
 - The central bank of country A should supply any excess demand of US dollars in the markets.
 - All of the above

III. Computation Question (20 points)

1. A country has the following model to describe her economic system: (unit: million)

- $C = 56 + 0.65Y_d$
- $I = 50 + 0.3Y_d - 0.15r$
- $M = 50 + 0.1Y_d$
- $r = 0.05Y_d$

$G = 170$, $X = 100$, $\text{tax rate} = 0.2$.

(C : consumption, I : Investments, M : Imports, X : Exports, r : Interest Rate, G : Government Expenditure, Y_d : Disposable Income)

- What is current amount of GNP of this country? (4 pts)
- This country has the following prediction model for the future GNP, Y :

$$\Delta Y_{t+1} = a + b\Delta M_t + \varepsilon_{t+1}$$

where $\Delta Y_{t+1} = Y_{t+1} - Y_t$, $\Delta M_t = M_t - M_{t-1}$ (M : money supply), and $\{\varepsilon_{t+1}\}$ follow usual classical Ordinary Least Squares assumption. It is observed that $\text{Cov}(\Delta Y_t, \Delta M_{t-1}) = 0.056$, $\text{Var}(\Delta M_{t-1}) = 0.07$, and $a = 50b$. We have found that the difference of money supply between the current period and last period is 100. Then, what are the predicted amount of next-period GNP and coefficients of a and b ? (12 pts)

- An econometrician in this country adjusts the model above as the following:

$$\Delta Y_t = \begin{cases} a_1 + b\Delta M_t + \varepsilon_{t+1}, & Y_t \geq 700 \\ a_2 + b\Delta M_t + \varepsilon_{t+1}, & Y_t < 700 \end{cases}$$

where $a_1 = 40b$ and $a_2 = 35b$. Then, what is the predicted amount of next-period GNP? (4 pts)

IV. Explain the following statement is true, false or uncertain. Your answer should be brief but rigorous. Use graphical analysis to back up your answer whenever it is necessary. (5 pts each)

1. A monopolist selling his output in two independent markets will never sell his output in any one of these markets at a price which does not cover his average cost per unit output because this is bound to reduce his total profits.
2. "Rational behavior" requires that people will never make mistakes in assessing the value of goods, or projects. Since they do, the theory must be wrong.
3. In a market economy, the capital market plays an important role in disciplining managers for their deviation in pursuing shareholders' wealth. Explain, and illustrate by an example.
4. An increase in sale tax on gasoline will not hurt sellers because the higher tax will simply be passed on to consumers.