

Part I: Multiple Choices: Choose the Best Answer. Three points for each question.

1. The demand for product A is estimated to be inelastic. When the price of product A increases, which of the following statement is true?
- Quantity demand increases, but total revenue decreases.
 - Quantity demand decreases, and total revenue decreases.
 - Quantity demand increases, and total revenue increases.
 - Quantity demand decreases, but total revenue increases.

2. In the short-run, a firm in a purely competitive market would be better off to shut down if
- the market price is lower than average cost.
 - the market price is lower than average variable cost.
 - the market price is lower than average fixed costs.
 - the market price is lower than unit production cost.

3. The major difference between monopolistic and perfect competition is
- Number and size of buyers.
 - Number and size of producers.
 - Production differentiation.
 - Difficulty of entry.

4. Assume the demand function of product X has the following form:

$$Q_x = 12 - 3.4P_x + 0.5I + 12P_y$$

Where Q_x is quantity demand of product X; P_x is price of product X; I is disposal income level; P_y is the price of product Y.

- Product X and Y are substitutes.
 - Product X and Y are complements.
 - Product X is inferior good.
 - None of the above
5. Which of the following factor will reduce the real money demand?
- An increase in the price level.
 - An increase in money supply.
 - An increase in real income level
 - An increase in interest rate.
6. For profit-maximizing firms, what will happen to the optimal level of output and profits if the government announces to levy a lump-sum tax (fixed amount of tax) on corporate profit?
- Optimal rate of output increases and total profit decreases.
 - Optimal rate of output decreases and total profit decreases.
 - Optimal level of output stays the same and total profit decreases
 - Optimal Level of output decreases and total profit decreases.

7. Compare firms in perfectly competitive market and monopoly:
- Firms in both types of markets utilize the same rule for profit maximization: $MR=MC$.
 - Firms in perfectly competitive markets earn zero economic profit, while firms in monopoly earn positive economic profit.
 - Relative to firms in perfectly competitive market, consumers have less amount of surplus in monopoly, and the loss of surplus is totally captured as producer's profit.
 - Both a and b
 - a, b and c
8. Which one of the following action will increase money supply?
- Central Bank purchases government securities in the market.
 - Central Bank increases reserve requirement.
 - Central Bank increases discount rate.
 - Both a and b
9. Which one of the following statement is true?
- Average cost curve is increasing when marginal cost is positive.
 - Total cost curve reaches maximum when average cost is equal to marginal cost.
 - Total cost curve is increasing when average cost curve is increasing.
 - Average cost curve is increasing when marginal cost curve lies above it.
 - c and d
10. Which one of the following factor will contribute to balance of payment surplus of Taiwan?
- Increase in imports.
 - Increase in foreign direct investment in Taiwan.
 - Purchase of IBM stocks listed in New York Stock Exchange.
 - Financial aids to foreign countries.
11. Consider the effect of expansionary fiscal policy in an open and closed economy,
- They tend to have the same effect on domestic economy.
 - The effect tends to be stronger in open economy because domestic interest rate tends to go down.
 - The effect is weaker in open economy because domestic interest rate tends to go up.
 - None of the above.
12. For efficient production firms must choose its inputs combination so that
- The marginal products of all inputs are the same.
 - The dollar worth of marginal products of all inputs is the same.
 - The marginal rates of technological substitution of all inputs are the same.
 - None of the above.

13. Economists have long argued that cartels such as OPEC will not survive in the long run. What is the most important reason often cited?
- Cartels can not compete with other small producers.
 - There is strong incentive for cartel members to cheat on the agreement.
 - Globalization will reduce the power of cartels.
 - Cartels will result in inefficiency.
14. Which statement about international trade is true?
- Taiwan will not benefit from trading with India.
 - International trade tends to result in specialization.
 - Everyone in the trading countries will benefit from international trade.
 - International trade is important in international knowledge spillover.
 - Both b and d
15. Which one will cause the demand curve of coffee to shift out (right), assuming coffee is a normal good?
- Price of coffee goes down.
 - Income level increases.
 - Price of tea, substitute of coffee, goes down.
 - Both a and b.
16. What will happen in purely competitive market if market price is above the minimum point of average cost curve?
- Firms will earn positive economic profits in the long run.
 - Some firms will enter this market, which drives down the market price until it is equal to the minimum point of average cost curve.
 - Some firms will leave this market, which reduces total market production.
 - There exists excess demand in the market.
17. Which statement is true about elasticity of demand?
- Goods with more substitutes tend to have less elastic demand (price elasticity).
 - Cross elasticity between car and tires should be negative.
 - When the economy is in recession producers of goods with negative income elasticity tend to suffer the most.
 - Both b and c
18. Which statement is true about velocity?
- Velocity is defined as the ratio of nominal GDP to the stock of money.
 - When interest rate rises, velocity increases.
 - Velocity tends to rise as more frequent wage payment is made.
 - All the above.

19. About Oligopoly, which statement is true?
- 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.
20. The depreciation of New Taiwan dollar tends to bring what impact on domestic economy?
- Reductions in export prices.
 - Reduction in import prices.
 - Reduction in the pressure of inflation.
 - Increase in domestic consumption.

Part III: Please answer the following questions as clearly as possible. Your grade depends on the quality of your reasoning, not conclusions. For calculation problems please show how the answers are derived carefully.

- Could a monopolist selling his output in two independent markets choose to sell in one market (say, market A) at a price that does not cover his average cost of production if his aim is to maximize money profits? Should such a price discrimination policy be resisted in market A? (7 points)
- Prove the following two theorems concerning indifference curves: (7 points)
 - Every indifference curve must be negatively sloped.
 - Two indifference curves can never intersect at a common point.
- Fill in the following THREE blanks in the following table of GNP statistics. (7 points)

YEAR	1995	1996	1997
Nominal GNP	4524.3		5233.2
Real GNP	3853.7	4024.4	
GNP deflator		121.3	126.3

- In 1980 the tuition of University of Tainan is about \$20,000, and the enrollment is 12000 students. In 1990, the tuition increased to \$29,000, and enrollment increased to 20000 students. Does this fact imply that the demand curve of education provided by University of Tainan is upward sloping? Or, you have other explanation? (7 points)

5. (12 points) Assume that a farmer receives his entire income each period in the form of two goods X and Y. Specifically, his income consists of 10 units of Y and 3 units of X. Under the prevailing market prices in the first period he reaches his consumption equilibrium by selling 6 units of Y and receiving in return 3 units of X. X and Y are the only commodities he consumes.
- A. Describe the farmer's behavior graphically by deriving his budget line.
- B. In the second period the price of X increases relative to the price of Y.
- (a) Draw the farmer's new budget line next to his initial budget line. How are the two related?
- (b) In the second period the farmer decides to consume 6 units of X. Has his position as a consumer been improved or worsen relative to his position in the first period?
- (c) Would your answer to part(b) change had you known that the consumer decided to consume 3 rather than 6 units of X under the relative prices prevailing in the second period?
- C. In the third period the prices of both X and Y increase by 10% relative to the prices prevailing in the first period. Use the relevant budget line analysis to compare the position of the farmer on the first and the third periods.