科目:經濟學	系所:經營管理研究所(無組別)	是否使用計算機:是
考試時間:100 分鐘	本科原始成績:100分	定百仗用司异悈. 定

## I. Multiple Choice Questions (60 points)

Please select <u>ONE</u> most appropriate answer in each following questions.

- ( ) 1. The market demand in a competitive market is  $Q^{d} = 60 6P$  and the market supply is
  - $Q^s = 4P$ . A price ceiling of \$3 will result in
  - A. A shortage of 18 units.
  - B. A shortage of 30 units.
  - C. A surplus of 30 units.
  - D. A surplus of 18 units.
- ( ) 2. The demand for good X is estimated by  $Q_x^d = 12 3P_x + 4P_y$ . Suppose that good X sells at \$2 per unit and good Y sells for \$1 per unit. Calculate the own price elasticity.
  - A. -0.2.
  - B. -0.4.
  - C. -0.6.
  - D. -0.8.
- ( ) 3. The idea that a consumer is limited to selecting a bundle of goods that is affordable is captured by the:
  - A. Budget constraint
  - B. Indifference curve
  - C. Consumer equilibrium
  - D. Price changes
- ( ) 4. Suppose the production function is given by Q=3K+4L. What is the marginal product of capital (K) when 10 units of capital (K) and 10 units of labor (L) are employed?
  - A. 3.
  - B. 4.
  - C. 7.
  - D. 70.
- ( ) 5. For maximizing its profits, a firm should continue to increase production of a good until:
  - A. Total revenue equal total cost
  - B. Marginal revenue equals marginal cost
  - C. Profits are zero
  - D. Average cost equals average revenue

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- () 6. Under a linear demand curve,
  - A. the elasticity is the same as the slope of the demand curve
  - B. demand is elastic at high prices
  - C. demand is unitary elastic at low prices
  - D. the elasticity is constant at all prices
- () 7. Producer surplus
  - A. is the area above the supply curve but below the demand curve.
  - B. is the area above the supply curve but below the market price of the good.
  - C. is the minimum amount required by a producer for producing the good.
  - D. is the maximum amount a producer can collect from consumers.
- () 8. The minimum wage
  - A. Is an example of floor price
  - B. Leads to an increase in the number of people employed in unskilled jobs
  - C. Leads to a decrease in the number of people employed in skilled jobs
  - D. Causes an increase in social welfare
- () 9. Which curve(s) does the marginal cost curve intersect at the (their) minimum point?
  - A. Average total cost curve
  - B. Average fixed cost curve
  - C. Average variable cost curve
  - D. Average total cost curve and average variable cost curve
- ( ) 10. The Leontief production function implies:
  - A. Straight line isoquants
  - B. Convex shaped isoquants
  - C. A positive MRTS
  - D. L-shaped isoquants
- () 11. Which of the following is a not a transactions costs associated with using inputs?
  - A. Wages paid to labor
  - B. Time spent negotiating labor contracts with union workers
  - C. Opportunity costs of negotiating the price of renting machines
  - D. Costs of searching for a new supplier of machines

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- ( ) 12. Under what condition that the long-term contracts become longer?
  - A. When specialized investment becomes more important.
  - B. When the exchange environment is more complex.
  - C. Spot markets work well.
  - D. Marginal costs are declining.
- ( ) 13. Game theory is especially useful for analysis in the following types of markets:
  - A. Perfect competition
  - B. Monopolistic competition
  - C. Oligopoly
  - D. Monopoly
- ( ) 14. Suppose that the duopolists competing in Cournot fashion agree to produce the collusive output. Given that firm two commits to this collusive output, it pays firm one to
  - A. Cheat by producing a higher level of output
  - B. Cheat by producing a lower level of output
  - C. Cheat by raising prices
  - D. Cheat by drcreasing prices
- ( ) 15. After a person buys insurance for his car, he will generally not care for his car as much as he otherwise would. This is an example of:
  - A. Adverse selection
  - B. Moral hazard
  - C. Risk aversion
  - D. Risk neutral
- ( ) 16. In the long run, the level of national income in an economy is determined by its:
  - A. factors of production and production function.
  - B. real and nominal interest rate.
  - C. government budget surplus or deficit.
  - D. rate of economic and accounting profit.
- ( ) 17. Investment goods as measured in the GDP are purchased by:
  - A. business firms alone.
  - B. households alone.
  - C. business firms and households.
  - D. business firms, households, and government.

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- () 18. The banking system creates:
  - A. wealth.
  - B. liquidity.
  - C. reserves.
  - D. currency.

( ) 19. Frictional unemployment is unemployment caused by:

- A. wage rigidity.
- B. minimum-wage legislation.
- C. clashes between the motives of insiders and outsiders.
- D. the time it takes workers to search for a job.
- ( ) 20. The rate of inflation is the:
  - A. median level of prices.
  - B. average level of prices.
  - C. percentage change in the level of prices.
  - D. measure of the overall level of prices.

#### II. Essay Questions (20 points)

- 1. What does "opportunity cost" mean? Please illustrate two examples to explain the opportunity cost.
- 2. Assume that you are looking for a car. Now, you have designated two candidates, a luxury (high price) and a bargain (low price). You can afford each of the two cars even the luxury one cost you NT\$ 1,500,000 and the bargain one cost you only NT\$ 600,000. But, you don't want to own both cars. Which car will you buy? Why? (Please explain your determination from the perspective of marginal utility).

#### III. Problem (20 points)

There are two companies,  $F_1$  and  $F_2$ , in a duopoly market structure, the inverse market demand function is P = 240 - Q, where  $Q = Q_1 + Q_2$  The cost function of each firm is identical and given by  $TC_i = 60Q_i$ , i = 1,2. Please calculate each firm's **price**, **output level** and **profit** in the following settings characterized by **Cournot**, **Stackelberg** ( $F_1$  is the leader and  $F_2$  is the follower), **Bertrand**, and **Collusion** behavior.