

個體經濟學試題

(限用答案本作答)

一、選擇題 (共 10 題; 單選, 每題 4 分)

1. In the labor market, a competitive firm must pay \_\_\_\_\_ wage to hire more workers whereas a monopsonist must pay \_\_\_\_\_ wage.  
(A) a higher; a lower  
(B) the same; a higher  
(C) a lower; a higher  
(D) a higher; a higher  
(E) the same; the same
2. Consider the ordinary and compensated demand curves for a normal good. If the price of the good falls, then  
(A) the increase in quantity demanded will be the same for the ordinary and compensated demand curves.  
(B) we cannot predict whether ordinary or compensated demand will show the larger response in quantity demanded.  
(C) the ordinary demand curve will show the larger increase in quantity demanded.  
(D) the compensated demand curve will show the larger increase in quantity demanded.
3. Lou's marginal product is 12, the firm's output price is \$5 and the wage rate is \$40. The firm  
(A) may or may not hire Lou.  
(B) will hire Lou.  
(C) will not hire Lou.  
(D) will hire Lou only if he accepts a wage of \$35.  
(E) does not have enough information to decide.
4. If a firm triples all its inputs and output triples as a result, then the firm  
(A) has increasing returns to scale.  
(B) has economies of scale.  
(C) has constant returns to scale.  
(D) will have lower total costs.  
(E) will have lower average total costs.
5. If the firm spends \$400 to produce 20 units of output and spends \$880 to produce 40 units, then the marginal cost of increasing production from 20 to 40 units is  
(A) \$24.  
(B) \$12.  
(C) \$20.  
(D) \$22.  
(E) impossible to calculate due to a lack of information.
6. Suppose a firm is collecting \$1999 in total revenues and the total cost of its fixed factors of production fall from \$500 to \$400. One can speculate that the firm will

本試題係兩面印刷

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- (A) expand output.
  - (B) lower price.
  - (C) contract output.
  - (D) earn greater profits or smaller losses.
  - (E) earn smaller profits or greater losses.
7. A farmer with \$1000 worth of crops in the field faces a 0.10 probability that a hail storm will destroy the value of her crop before she can harvest it. If she is risk averse, the most she would be willing to pay to insure against this loss is
- (A) \$0.
  - (B) \$100.
  - (C) \$900.
  - (D) \$10.
8. Suppose the consumer's indifference curves are concave (i.e., bowed away from the origin) instead of convex. In this situation,
- (A) along an indifference curve, the marginal value of X is falling as more X and less Y is consumed.
  - (B) all baskets on the budget line give the consumer the same level of satisfaction.
  - (C) the consumer's optimum is always a corner solution.
  - (D) the marginal value of X must equal  $P_X/P_Y$  at the consumer's optimum.
9. The price elasticity of demand for a good is -0.40. By how much must the price of the good decrease in order for sales to rise by 12%?
- (A) 4.8%.
  - (B) 30%.
  - (C) 3%.
  - (D) 12.4%.
10. The value of the marginal product curve is downward sloping because
- (A) firms must lower price to sell more.
  - (B) at lower wages, only less qualified workers are available.
  - (C) of the law of diminishing marginal product.
  - (D) profits decline as more workers are hired.
  - (E) productivity rises as more workers are hired.

本試題係兩面印刷

二、計算與簡答題 (共 3 題; 每題 20 分)

1. Mr. Friday and Mr. Gannon each have an allocation of 5 pounds of coffee and 6 dozen donuts. Mr. Gannon has a utility function  $U_G(c, d) = cd$ , and Mr. Friday has a utility function  $U_F(c, d) = c + 3d$ , where  $c$  is pounds of coffee and  $d$  is

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dozens of donuts. Friday offers to trade one pound of coffee to Gannon for  $\frac{1}{2}$  dozen donuts. Will Gannon accept the trade? Will the final allocation be envy free?

2. 考慮某個商品市場上只有兩個廠商 F1 與 F2，在假設對手的產量不變下，每個廠商選擇一個產量使自己的利潤極大。兩廠商的單位生產成本都是  $c$  ( $c$  是常數)、固定成本皆為零，他們面對的需求函數分別為

$$q_1 = a - p_1 + bp_2, q_2 = a - p_2 + bp_1, b > 0$$

式中  $p_1$  與  $p_2$  分別為廠商 F1 與 F2 的商品價格;  $q_1$  與  $q_2$  分別為廠商 F1 與 F2 的產量。請寫出 (i) 廠商 F1 與 F2 的利潤函數 (ii) 廠商 F1 與 F2 的最佳反應函數，並解出 (iii) 廠商 F1 與 F2 的最適產量。

3. 現有 Donna's Deep Dish 與 Pierce's Pizza Pies 兩家披薩店從事商業競爭，為了簡化起見，假設只有高價與低價兩種策略可供其選擇。下表表格中的數字組合第一個數字代表 Donna's Deep Dish 採用所選策略能夠獲得的利潤，第二個數字代表 Pierce's Pizza Pies 採用所選策略能夠獲得的利潤 (單位:千元)。請問此賽局的單純策略納許(Nash)均衡為何? 並說明產生此均衡的理由。

		Pierce's Pizza Pies	
		高價	低價
Donna's Deep Dish	高價	90, 90	66, 100
	低價	100, 66	80, 80