選擇題（共 20 題；每題 3 分）

1. The difference between short-run demand and long-run demand for a monopolistic competitor is
   (A) in the long run, demand slopes downward, but in the short run it is horizontal.
   (B) there is no difference between long-run and short-run demand for a monopolistic competitor.
   (C) the long-run demand is elastic, whereas the short-run demand is inelastic.
   (D) long-run demand results in no economic profit, whereas short-run demand might result in profits or losses.
   (E) in the short run, demand slopes downward, but in the long run it is horizontal.

2. Suppose a competitive firm that is profit maximizing pays a wage of $750 per week and the price of its output is $15 per unit. Based on this information, you may surmise that the firm’s marginal revenue product is
   (A) 15 units.
   (B) 50 units.
   (C) $750.
   (D) $50.
   (E) $15.

3. In a market economy, prices are
   (A) mainly government determined transfer prices.
   (B) determined solely by firms, and not by consumers.
   (C) freely determined.
   (D) determined by the government.
   (E) mainly transfer prices.

4. Advertising may serve to do any of the following except
   (A) persuade individuals to continue buying a product even when they do not need it.
   (B) inform consumers of how a product is different from others.
   (C) mislead consumers into thinking one product is better than another.
   (D) persuade people to try a product.
   (E) mainly transfer prices.

5. A negative externality occurs when the purchase of a product
   (A) causes the seller of the product to lose profits.
   (B) increases market competition.
   (C) causes the government to lose tax revenues.
   (D) causes a lower market price.
   (E) adversely affects the well-being of an individual outside of the market.
6. Refer to the figure below. The price and quantity combination that represent social

efficiency for this market is

(A) $P_2$ and $Q_2$.
(B) $P_3$ and $Q_1$.
(C) $P_1$ and $Q_2$.
(D) $P_2$ and $Q_2$.
(E) $P_3$ and $Q_1$.

7. Oligopolistic firms engaging in Cournot competition result in

(A) a higher equilibrium price but lower equilibrium quantity than those for

perfect competition.
(B) higher equilibrium price and equilibrium quantity than those for a

monopoly.
(C) a higher equilibrium price but lower equilibrium quantity than those for a

monopoly.
(D) the same equilibrium price and equilibrium quantity as those for a

monopoly.
(E) lower equilibrium price and equilibrium quantity than those for perfect

competition.

8. In a monopolistically competitive market, firms produce

(A) similar but not identical products
(B) any kinds of products but at the same price.
(C) an identical product.
(D) totally different products.
(E) products that other firms do not produce.
9. Which of the following statements about the effects of a tax on a good is true?
   (A) When price elasticity of demand is very low, the deadweight loss from a
       per-unit tax on a good is relatively high.
   (B) A 10 cent tax charged to a merchant for every bag of potato chips the
       merchant sells is entirely paid by the merchant.
   (C) When price elasticity of supply is very high, the deadweight loss from a
       per-unit tax on a good is relatively low.
   (D) The greater the price elasticity of demand for a good, the greater the cost to
       society of a tax on that good.
   (E) A $1,000 tax imposed on car dealers for every car sold will cause the price of
       cars to rise $1,000.

10. An example of a public good is
    (A) education.
    (B) cable TV.
    (C) bottled water.
    (D) national defense.
    (E) milk.

11. The difference between a repeated game and one that is played only once is that
    (A) more information is available in the repeated game.
    (B) firms have different reasons for existing.
    (C) the payoffs per period of time are different.
    (D) fewer firms exist in a one-time game.
    (E) firms act out of their own self-interest only in a one-time game.

12. The costs of government services
    (A) do not include the dollar costs but do include any deadweight losses from
        the increased taxes needed to finance the services.
    (B) include the dollar costs but do not include any deadweight losses from the
        increased taxes needed to finance the services.
    (C) include neither the dollar costs nor any deadweight losses from the
        increased taxes needed to finance the services.
    (D) are always considered to be zero.
    (E) include the dollar costs and any deadweight losses from the increased taxes
        needed to finance the services.

13. Economies of scale can be a barrier to entry when
    (A) it takes a very large capital investment to get average costs as low as those
        of firms already in the industry.
    (B) it is realized that entry into the market will increase input prices.
    (C) many investors are required in order to start a new firm.
    (D) potential entrants do not have the expertise to run a firm that does
        large-scale production.
(E) potential entrants do not realize their costs would fall if they would just make a little investment.

14. Suppose a consumer can spend $1,000 on food and clothing. The price of food is $5 per unit and the price of clothing is $20 per unit. Also, suppose the consumer was consuming 100 units of food and 25 units of clothing and the price of food rises to $10. Then
(A) if the consumer does not reduce food consumption, clothing consumption can, at best, be 12.5 units.
(B) the maximum amount of clothing the consumer can buy is 25 units.
(C) the consumer will consume 50 units of clothing.
(D) the maximum amount of food the consumer can buy is 50 units.
(E) the maximum amount of food the consumer can buy is 100 units.

15. Which of the following statements about natural monopolies is not true?
(A) Natural monopolies occur when minimum efficient scale is reached after demand is satisfied.
(B) Natural monopolies occur because of the nature of the market system.
(C) The average total costs of natural monopolies continue to decline over production.
(D) Cost curve characteristics are part of why natural monopolies occur.
(E) Natural monopolies can be eliminated through technological change.

16. Suppose that for a monopoly, its average total cost is $3.50, marginal cost is $3, and its marginal revenue is $3 with a selling price of $4. To maximize profits, the monopoly should
(A) decrease output but increase price.
(B) decrease both output and price.
(C) increase output but decrease price.
(D) not change price or output.
(E) increase both output and price.

17. For a monopoly, when demand is elastic, marginal revenue is
(A) positive and total revenue is rising.
(B) zero and total revenue is at its maximum.
(C) positive and total revenue is falling.
(D) negative and total revenue is falling.
(E) negative and total revenue is rising.

18. Which of the following is not an example of price discrimination?
(A) Magazine publishers charging less for the subscription of magazines to students than to the general public.
(B) Taverns charging cover charges only to men.
(C) Charging more to send a large package than a small package.
(D) Airlines charging different amounts based on how early reservations are
made.
(E) Letting children eat free when accompanied by an adult in a nice restaurant.

19. Firms engage in product differentiation
(A) to be classified as price-takers.
(B) to gain market power.
(C) to minimize average total cost.
(D) to minimize total cost.
(E) so that the industry they are in becomes classified as pure competition.

20. If marginal productivity in the economy (however it is measured) is 90 units per day and the average price level is $2, the nominal wage would be
(A) $90.
(B) $2.
(C) $180.
(D) $45
(E) $88.

二、計算與簡答题 (共 2 題; 每題 20 分)

1. A monopolist produces a single good X but sells it in two separate markets. The demand function for each market is
   \[ P_1 = 50 - 4x_1 \quad \text{and} \quad P_2 = 80 - 3x_2 \]
   where \( P_1 \) and \( x_1 \), \( P_2 \) and \( x_2 \) are the price and quantity in markets 1 and 2 respectively. The cost function is \( TC = 120 + 8x \), where \( x = x_1 + x_2 \).
   (a) Find the price and quantity of the good in each market which maximizes profit. (6 分)
   (b) Determine the price elasticity of demand for each market. (4 分)
   (c) Find the price and quantity of the good in each market which maximizes profit when the monopolist does not use price discrimination, that is, \( P_1 = P_2 \). (10 分)
2. 「囚犯的困境」（Prisoner’s Dilemma）賽局常被用來描述兩人不合作的行動，造成不利的結果。現有 Donna’s Deep Dish 與 Pierce’s Pizza Pies 兩家披薩店從事商業競爭形成了以下之「囚犯的困境」。請問此賽局的單純策略（pure strategy）均衡與混合策略（mixed strategy）均衡各為何？（10 分）并舉出一種解決此囚犯困境賽局的方法。（10 分）（每一方格中的數字依序為 Donna’s Deep Dish 與 Pierce’s Pizza Pies 在該策略組合下的利潤，單位：萬元）

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