

總分：100 分

一、選擇題 (Multiple Choices) (48%)

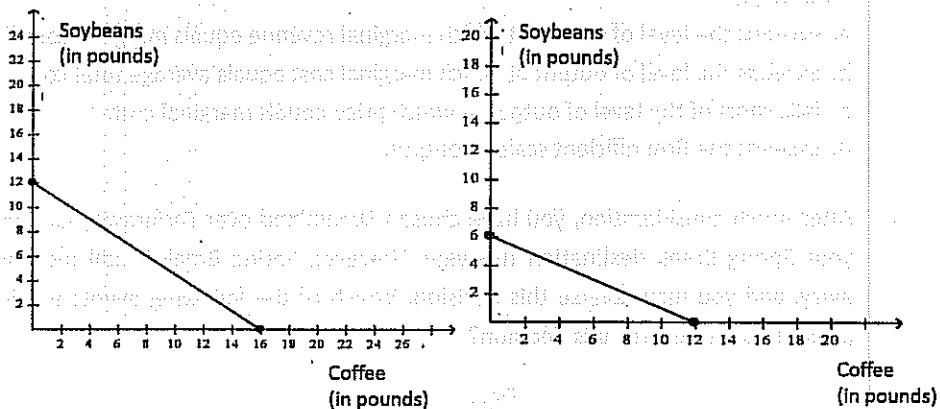
1. Consider the market for new DVDs. If DVD players became cheaper, buyers expected DVD prices to fall next year, used DVDs became more expensive, and DVD production technology improved, then the equilibrium price of a new DVD would
  - a. rise.
  - b. fall.
  - c. stay the same.
  - d. could rise, fall, or remain unchanged.
  
2. For a small country called Daiwan, the equation of the domestic demand curve for pineapple is  $Q^D = 200 - 2P$ , where  $Q^D$  represents the domestic quantity of pineapple demanded, and  $P$  represents the price of a pineapple. The equation of the domestic supply curve for pineapple is  $Q^S = -60 + 3P$ , where  $Q^S$  represents the domestic quantity of pineapple supplied, and  $P$  again represents the price of pineapple. Suppose the world price of pineapple is \$60. Then, relative to the no-trade situation, international trade in pineapple
  - a. benefits Daiwan consumers by \$750 and harms Daiwan producers by \$660.
  - b. harms Daiwan consumers by \$736 and harms Daiwan producers by \$598.
  - c. harms Daiwan consumers by \$704 and benefits Daiwan producers by \$864.
  - d. harms Daiwan consumers by \$804 and benefits Daiwan producers by \$984.
  
3. Suppose the point of tangency that characterizes long-run equilibrium for a monopolistically competitive firm occurs at  $Q_1$  units of output. This level of output,  $Q_1$ ,
  - a. exceeds the level of output at which marginal revenue equals marginal cost.
  - b. exceeds the level of output at which marginal cost equals average total cost.
  - c. falls short of the level of output at which price equals marginal cost.
  - d. exceeds the firm efficient scale of output.
  
4. After much consideration, you have chosen Dreamland over Farfaraway land as your Spring Break destination this year. However, Spring Break is still months away, and you may reverse this decision. Which of the following events would prompt you to reverse this decision?

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- a. The marginal benefit of going to Dreamland increases.
  - b. The marginal cost of going to Dreamland decreases.
  - c. The marginal benefit of going to Farfaraway land decreases.
  - d. The marginal cost of going to Farfaraway land decreases.
5. Mark is refinishing an antique china cabinet and has already spent \$180 on the restoration. He expects to be able to sell the cabinet for \$360. Mark discovers that he needs to do an additional \$200 of work to make the cabinet worth \$360 to potential buyers. He could also sell the cabinet now, without completing the additional work, for \$100. What should he do?
- a. He should complete the additional work and sell the cabinet for \$360.
  - b. He should sell the cabinet now for \$100.
  - c. He should keep the cabinet since it wouldn't be rational to spend \$380 restoring a cabinet and then sell it for only \$360.
  - d. It does not matter which action he takes since the outcome will be the same either way.
6. Suppose Ma spends exactly \$1000 a day on lunch box, regardless of the price of lunch box; Kim buys 3 lunch box every day, regardless of the price of lunch box. Ma and Kim's demand for lunch box are
- a. perfectly inelastic and inelastic respectively.
  - b. perfectly elastic and unit elastic respectively.
  - c. unit elastic and perfectly inelastic respectively.
  - d. inelastic and perfectly elastic respectively.

Figure 1

Chile Production Possibilities Frontier      Colombia Production Possibilities Frontier



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7. Refer to Figure 1. If Chile and Colombia each spends all of its time producing the good in which it has a comparative advantage and the countries agree to trade 7 pounds of coffee for 5 pounds of soybeans, then Chile will consume
- a. 7 pounds of coffee and 7 pounds of soybeans and Colombia will consume 5 pounds of coffee and 5 pounds of soybeans.
  - b. 7 pounds of coffee and 7 pounds of soybeans and Colombia will consume 5 pounds of coffee and 11 pounds of soybeans.
  - c. 23 pounds of coffee and 7 pounds of soybeans and Colombia will consume 5 pounds of coffee and 5 pounds of soybeans.
  - d. 23 pounds of coffee and 7 pounds of soybeans and Colombia will consume 5 pounds of coffee and 11 pounds of soybeans.
8. Suppose the cost of operating a 75 room hotel for a night is \$6,000 and there are 5 empty rooms for tonight. If the marginal cost of operating one room for one night is \$40, the hotel manager should rent one of the empty rooms only if a customer is willing to pay
- a. more than \$40, as the average benefit will exceed the marginal cost.
  - b. more than \$40, as the marginal benefit will exceed the marginal cost.
  - c. more than \$80, as the average benefit will exceed the marginal cost.
  - d. more than \$80, as the marginal benefit will exceed the marginal cost.
9. PlayStations and PlayStation games are complementary goods. A technological advance in the production of PlayStations will
- a. increase consumer surplus in the market for PlayStations and decrease producer surplus in the market for PlayStation games.
  - b. increase consumer surplus in the market for PlayStations and increase producer surplus in the market for PlayStation games.
  - c. decrease consumer surplus in the market for PlayStations and increase producer surplus in the market for PlayStation games.
  - d. decrease consumer surplus in the market for PlayStations and decrease producer surplus in the market for PlayStation games.
10. Suppose a monopolist has a demand curve that can be expressed as  $P = 90 - Q$ . The monopolist has constant marginal costs and average total costs of \$10. The profit-maximizing monopolist will produce an output level and price of
- a. 40 units and 10.
  - b. 40 units and 50.
  - c. 80 units and 10.
  - d. 80 units and 50.

見背面

**Table 1**

Two bottled beverage manufacturers (Firm A and Firm B) are considering whether to advertise or not. Each firm believes that advertising works by increasing the demand for the firm's product, but each firm also believes that if neither firm advertises, the costs savings will outweigh the lost sales. Listed in the table below are the individual profits for each firm.

		Firm A	
		<i>Breaks the agreement and advertises</i>	<i>Maintains the agreement and does not advertise</i>
Firm B	<i>Breaks the agreement and advertises</i>	Firm A profit = \$9,000 Firm B profit = \$4,000	Firm A profit = \$8,000 Firm B profit = \$6,000
	<i>Maintains the agreement and does not advertise</i>	Firm A profit = \$11,000 Firm B profit = \$3,500	Firm A profit = \$10,000 Firm B profit = \$5,000

11. Refer to Table 1. At the Nash equilibrium, how much profit will Firm B earn?

- a. \$3,500.
- b. \$4,000.
- c. \$5,000
- d. \$6,000.

**Scenario 1**

In the small town of Hogsmeade, there is a local hardware store called Eddy's Hardware. There are only two types of workers who apply for jobs at Eddy's Hardware: cowboys and farm boys. Local politicians have received numerous complaints that Eddy's Hardware is practicing wage discrimination against cowboys. Eddy's Hardware denies the complaint and says the store is only trying to maximize profit.

12. Refer to Scenario 1. Which of the following statements would weaken the discrimination complaint against Eddy's Hardware?

- a. Cowboys are more productive than farm boys.
- b. Cowboys work longer hours than farm boys and their effort is greater.
- c. Cowboys are generally less educated than farm boys in the field of hardware.
- d. All of the above would weaken the discrimination complaint.

**二、簡答題 (Short Answer Questions) (10%)**

1. (5%) 「一代不如一代」的說法最早出自南宋王君玉的《國老談苑》，但現今時代的科技與生活卻是南宋時期的人無法想像的程度。請以經濟學的角度分析每一世代的老年人都認為年輕人「一代不如一代」之原因。
2. (5%) 請評論「調高最低工資可促進勞工福利」之說法。

## 三、計算題 (Calculations) (42%)

1. (18%) 假設長期之下，消費者對於兩神巧克力的需求為：

$$Q^D = 120 - 2P$$

$P$  為兩神巧克力的價格。而巧克力廠商的生產函數為：

$$q = (\min\{L, 4K\} - 8)^{\frac{1}{3}} + 2$$

廠商為要素市場的價格接受者，均衡工資為  $w = 1$ ，均衡資本利息為  $r = 4$ ，則

- (6%) 由於兩神巧克力爆紅的緣故，現今有許多廠商加入生產的行列，可將其視為完全競爭市場。請求出完全競爭廠商的長期供給線。
  - (6%) 承上題，試求出此市場之均衡廠商數目。
  - (6%) 若市場的需求增加為  $Q^D = 144 - P$ ，請討論此需求變動對短期和長期的影響，並求出長期均衡的價格、均衡數量以及廠商數目。
2. (24%) 假設手機市場中只有橘子和雙星兩家製造商，且兩家廠商生產相同產品。假定兩家廠商的成本函數分別為

$$c^{Orange} = 4q_1 \text{ and } c^{star} = 4q_2.$$

且市場的需求函數為

$$p = 100 - (q_1 + q_2)$$

$q_1$  為橘子的產量而  $q_2$  為雙星的產量，則：

- (6%) 若兩家廠商決定勾結，試求出市場均衡價格及數量及利潤。
- (6%) 若政府判定勾結行為觸犯法律，試求出兩家廠商分別供給的數量、均衡價格及利潤。
- (6%) 承上題，在無法勾結的情況下，若雙星因技術創新成本函數下降為  $c^{star} = 2q_2$ ，試求出兩家廠商的供給數量及市場價格。
- (6%) 承 b 小題，若手機市場的生產門檻降低，現共有 15 家廠商加入生產，試求每家均衡數量及價格。

試題隨卷繳回