題號: 121 國立臺灣大學101學年度碩士班招生考試試題

科目:經濟學(A)

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第一部分: 單選題,共18題,每題4分。(寫下答案即可,不須說明。) ※ 注意:請於試卷內之「選擇題作答區」依序作答。

- 1. What would happen to the equilibrium price and quantity of coffee if the wages of coffee-bean pickers fell and the price of tea fell?
 - a. Price will fall and the effect on quantity is ambiguous.
 - b. Price will rise and the effect on quantity is ambiguous.
 - c. Quantity will fall and the effect on price is ambiguous.
 - d. Quantity will rise and the effect on price is ambiguous.
- 2. A tax of \$0.25 is imposed on each bag of potato chips that is sold. The tax:
 - decreases producer surplus by \$600 per day;
 - generates tax revenue of \$1,220 per day;
 - decreases the equilibrium quantity of potato chips by 120 bags per day. From this information, it follows that the tax
 - a. decreases consumer surplus by \$645 per day.
 - b. decreases the equilibrium quantity from 6,000 bags per day to 5,880 bags per day.
 - c. decreases total surplus from \$3,000 to \$1,800 per day.
 - d. produces a deadweight loss of \$15 per day.
- 3. At the 2005 annual meetings of the American Economic Association, Paul J. Ferraro and Laura O. Taylor of Georgia State University asked some 200 economists, many with PhDs from top-economics programs, a simple question: You won a free ticket to see an Eric Clapton concert (which has no resale value). Bob Dylan is performing on the same night and is your next-best alternative activity. Tickets to see Dylan cost \$40. On any given day, you would be willing to pay up to \$50 to see Dylan. Assume there are no other costs of seeing either performer. Based on this information, what is the opportunity cost of seeing Eric Clapton?
 - a. \$0
 - b. \$10
 - c. \$40
 - d. \$50

Scenario 1. Imagine that two oil companies, Lexxon and PB, own adjacent oil fields. Under the fields is a common pool of oil worth \$48 million. Drilling a well to recover oil costs \$4 million per well. If each company drills one well, each will get half of the oil and earn a \$20 million profit (\$24 million in revenue - \$4 million in costs). Assume that having X percent of the total wells means that a company will collect X percent of the total revenue.

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4. Refer to Scenario 1. If Lexxon were to drill a second well, what would its profit be if

- a. \$22 million
- b. \$24 million
- c. \$26 million
- d. \$28 million
- 5. Refer to Scenario 1. PB's dominant strategy would lead to what sort of well-drilling behavior?
 - a. PB will never drill a second well.

PB did not drill a second well?

- b. PB will always drill a second well.
- c. PB will drill a second well only if Lexxon drills a well.
- d. PB will drill a second well only if Lexxon does not drill a well.

Table 1

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Prices a	and (manti	TIAC
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Year	Price of Sandwiches	Quantity of Sandwiches	Price of Magazines	Quantity of Magazines
2006	\$4.00	100	\$2.00	180
2007	\$5.00	120	\$2.50	200
2008	\$6.00	150	\$3,50	200

- 6. Refer to Table 1. Using the GDP deflator to measure the average level of prices and using 2006 as the base year, the economy's inflation rate is
 - a. 20% for 2007 and 12.5% for 2008.
 - b. 20% for 2007 and 30% for 2008.
 - c. 25% for 2007 and 28% for 2008.
 - d. 44% for 2007 and 45% for 2008.
- 7. Suppose there are only two firms in an economy: Cowhide, Inc. produces leather and sells it to Couches, Inc., which produces and sells leather furniture. With each \$1,000 of leather that it buys from Cowhide, Inc., Couches, Inc. produces a couch and sells it for \$2,000. Neither firm had any inventory at the beginning of 2006. During that year, Cowhide produced enough leather for 20 couches. Couches, Inc. bought 80% of that leather for \$16,000 and promised to buy the remaining 20% for \$4,000 in 2007. Couches, Inc. produced 16 couches during 2006 and sold each one during that year for \$2,000. What was the economy's GDP for the year?
 - a. \$32,000
 - b. \$36,000
 - c. \$40,000
 - d. \$52,000

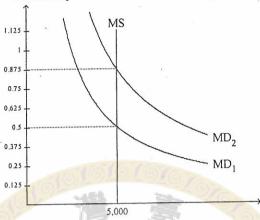
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Figure 1. On the graph, MS represents the money supply and MD represents money demand. The usual quantities are measured along the axes.



- 8. Refer to Figure 1. If the relevant money-demand curve is the one labeled MD₁, then the equilibrium value of money is
 - a. 0.5 and the equilibrium price level is 2.
 - b. 2 and the equilibrium price level is 0.5.
 - c. 0.5 and the equilibrium price level cannot be determined from the graph.
 - d. 2 and the equilibrium price level cannot be determined from the graph.
- Refer to Figure 1. Which of the following events could explain a shift of the money-demand curve from MD₁ to MD₂?
 - a. an increase in the value of money
 - b. a decrease in the price level
 - c. an open-market purchase of bonds by the Federal Reserve
 - d. None of the above is correct.
- 10. Refer to Figure 1. Suppose the relevant money-demand curve is the one labeled MD₁; also suppose the velocity of money is 3. If the money market is in equilibrium, then the economy's real GDP amounts to
 - a. 5,000.
 - b. 7,500.
 - c. 10,000.
 - d. 15,000.
- 11. Suppose that U.S. citizens purchase more cars made in Korea, and Koreans purchase more bonds issued by U.S. corporations. Other things the same, these actions
 - a. raise both U.S. net exports and U.S. net capital outflows.
 - b. raise U.S. net exports and lower U.S. net capital outflows.
 - c. lower both U.S. net exports and U.S. net capital outflows.
 - d. lower U.S. net exports and raise U.S. net capital outflows.

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12. In 2009 President Obama and Congress increased government spending. Some economists thought this increase would have little effect on output. Which of the following would make the effect of an increase in government expenditures on aggregate demand smaller?

- a. the interest rate falls, aggregate supply is relatively flat, the MPC is small and changes in the interest rate have a small effect on investment
- b. the interest rate falls, aggregate supply is relatively steep, the MPC is large and changes in the interest rate have a small effect on investment
- c. the interest rate rises, aggregate supply is relatively flat, the MPC is large and changes in the interest rate have a large effect on investment.
- d. the interest rate rises, aggregate supply is relatively steep, the MPC is small and changes in the interest rate have a large effect on investment
- 13. In a certain economy, when income is \$200, consumer spending is \$145. The value of the multiplier for this economy is 6.25. It follows that, when income is \$230, consumer spending is
 - a. \$166.75. For this economy, an initial impulse of \$10 in consumer spending translates into a \$62.50 increase in aggregate demand.
 - b. \$166.75. For this economy, an initial impulse of \$10 in consumer spending translates into a \$66.75 increase in aggregate demand.
 - c. \$170.20. For this economy, an initial impulse of \$10 in consumer spending translates into a \$62.50 increase in aggregate demand.
 - d. \$170.20. For this economy, an initial impulse of \$10 in consumer spending translates into a \$70.20 increase in aggregate demand.
- 14. If the natural rate of unemployment falls,
 - a. both the short-run and long-run Phillips curves shift left.
 - b. the short-run Phillips curve shifts left, the long-run Phillips curve is unchanged.
 - c. the short-run Phillips curve is unchanged, the long-run Phillips curve shifts right.
 - d. the short-run and the long-run Phillips curves shift right.
- 15. If a central bank were required to target inflation at zero, then when there was a negative aggregate supply shock the central bank
 - a. would have to increase the money supply. This would move unemployment closer to the natural rate.
 - b. would have to increase the money supply. This would move unemployment further from the natural rate.
 - c. would have to decrease the money supply. This would move unemployment closer to the natural rate.
 - d. would have to decrease the money supply. This would move unemployment further from the natural rate.

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16. Suppose a lake is used for fishing. The following table indicates both the marginal and average product of sending out various quantities of fishing boats.

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Boats	Fish Caught	MP	AP
0	- 0		_
1	200	200	200
2	380	180	190
3	540	160	180
4	680	140	170
5	800	120	160
6	900	100	150

How much should the government charge each boat to ensure that there is a socially optimal amount of boats?

- a. \$160
- b. \$180
- c. \$20
- d. \$0
- 17. In the case before her, Judge Runquist has heard claims by Maine potato farmers that to order a stop to potato farming in order to control a pest that thrives on potato plants but does not harm them would result in a loss of profits of \$3 million a year. The pest however causes \$2 million of damages to trees owned by pulp manufacturers. The farmers have not mentioned that they could control the pest at a cost of \$1 million per year. High transactions costs have prevented the parties from reaching a private agreement. If she gives the property right to the
 - a. farmers, they will then voluntarily control the pest.
 - b. farmers, they will not control the pest.
 - c. pulp manufacturers, they will pay the farmers to control the pest.
 - d. pulp manufacturers, the farmers would offer a side payment of at least \$2 million to be able to grow potatoes.
- 18. In the *IS-LM* model, a decrease in government purchases leads to a(n) _____ in planned expenditures, a(n) _____ in total income, a(n) _____ in money demand, and a(n) ____ in the equilibrium interest rate.
 - a. decrease; decrease; decrease
 - b. increases; increases; increases
 - c. decrease; decrease; increase; increase
 - d. increase; increase; decrease; decrease

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第二部份:簡答題(寫出答案即可, 不需要計算過程。)

※ 注意:請於試卷內之「非選擇題作答區」作答,並應註明作答之題號。

1. 300 年前的美麗之島是個封閉的國家,農耕技術僅維持祖先流傳下來的耕作 方法,人口(勞動投入)成長率為 4%,假設生產函數為固定規模報酬的 Cobb-Douglas:

 $Y = F(K, L) = AK^{\alpha}L^{\beta}$

其中,K為耕地面積,L 為勞動投入,Y 為產出, $\alpha = 0.3$ 。假設農家施肥僅 能維持 K 不變,請問:

- (1) 在上述 300 年前美麗之島的經濟成長率之下,經過多少年可讓產出變成兩倍?(5分)
- (2) 美麗之島開放與紅毛番國往來,農民習得新的水牛馴養法,農耕技術開始每年以 3.3%的速度進步,若該國想要達成勞動生產力每年成長 4.5%的目標,請問 K/L 的成長率為何?(5 分)
- 2. 小八人形公仔為市場中的獨佔廠商。根據他的觀察消費者可分為 A, B 兩種族 群,其需求函數分別為 $P_A = 100 q_A$ 以及 $P_B = 120 2q_B$, 廠商的成本函數為 $TC = 80 + (q_A + q_B)^2$,在利潤極大化假設下,若小八有能力進行三級差別取價, 則其兩市場所獲之總利潤為何?(5分)
- 3. R 與 M 兩家雙占公司所面對的市場總需求曲線為 $P = 460 2(q_R + q_M)$,兩家 廠商的成本函數分別為 $C_R(q) = 25 + 10q_R + q_R^2$ 與 $C_M(q) = 60 + 24q_M + 2q_M^2$
 - (1) 如果兩家廠商聯合壟斷市場,則R公司的產量與市場價格分別為何?(6分)
 - (2) 若兩家公司進行 Cournot 競爭,則 R 公司與 M 公司的產量分別為何?(7分)

試題隨卷繳回