東吳大學 114 學年度碩士班招生考試試題

系級	經濟學系碩士班	考試時間	100 分鐘
科目	經濟學	本科總分	100 分

※一律作答於答案卷上(題上作答不予計分)；並務必標明題號，依序作答。

一、單選題，每題 3 分。(60 分)

Mary, June, and Kay are three siblings who have been asked by their parents to decide where they would like to go for their vacation. They have been given three options - a beach that is 100 miles away, a waterfall that is 300 miles away and an old city of historic importance which is 120 miles away. The table below lists the preferences of the three siblings.

Siblings	Most Preferred	In Between	Least Preferred
Mary	Beach	Old city	Waterfall
June	Waterfall	Beach	Old city
Kay	Old city	Waterfall	Beach

1. Refer to the table above. Which of the following statements is **true**?
   (a) Mary has single-peaked preferences.
   (b) Kay will reach his political bliss point if they go to the beach.
   (c) The cumulative preference in this situation does not guarantee transitivity.
   (d) If there is a vote between the beach and the old city, the old city will get a majority of votes.

2. Under which of the following conditions would the interdiction of illegal drugs result in a decrease in the quantity of drugs sold and in a decrease in total spending on illegal drugs by drug users?
   (a) The price elasticity of supply for illegal drugs is 0.8.
   (b) The price elasticity of demand for illegal drugs is 1.3.
   (c) The interdiction has the effect of shifting the supply curve for illegal drugs to the right.
   (d) As a result of the interdiction, the price of illegal drugs increases by 20 percent and the quantity of illegal drugs sold decreases by 16 percent.

3. Mark works as a business development officer for a leading electronics company. His main task is to meet potential clients in their respective offices and try to enter into a business deal with them. Irrespective of the number of clients approached and deals made, Mark earns a fixed salary every month. Because his boss does not cross-check how many clients he meets in a day, Mark often does not meet all the clients that he is supposed to. His behavior is an example of ________.
   (a) adverse selection
   (b) moral hazard
   (c) a positive externality
   (d) a pecuniary externality

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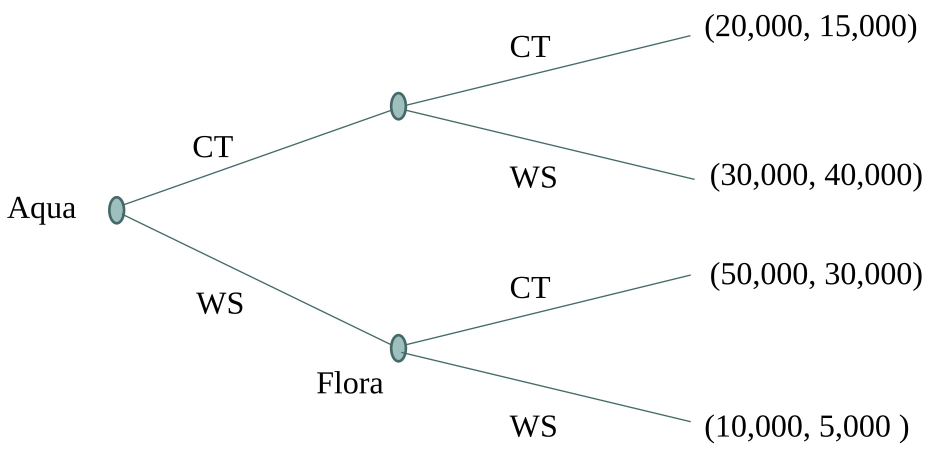
Scenario: Aqua Inc. and Flora Inc. are two rival firms in the market for baby care products. Both firms are considering opening a new outlet for their products. They have two alternative location choices, one in College Town (CT) and the other on Whale Street (WS). The marketing team at Flora has decided to choose the location for its outlet after Aqua chooses the location for its outlet. The game tree given below shows the payoff to each firm for its decisions.



4. Refer to the above scenario. Which of the following is **true**?
   (a) Aqua should always open its outlet on College Town.
   (b) Flora should follow strategy Whale Street if Aqua will open its outlet on Whale Street.
   (c) Aqua will open its outlet on Whale Street and Flora will follow strategy College Town.
   (d) Flora should follow strategy College Town if Aqua will open its outlet on College Town.

5. Which of the following is an example of a natural experiment?
   (a) A research on the effectiveness of a new medicine among some voluntary participants.
   (b) A laboratory research on the effectiveness of solar power as an alternative source of fuel.
   (c) A study on the benefits of regular exercise by paying for the membership fees at fitness clubs for one-half of the participants.
   (d) A research on the effect of air pollution on lung disorders by observing the health conditions of people who stay close to industrial areas and those who stay away from industries.

6. Which of the following was an effect of the price ceiling placed on gasoline in the U.S. in the 1970s?
   (a) Car owners started buying luxury cars that were less fuel-efficient as the price of gas was very low.
   (b) Those who valued gas the most were able to buy gas under the price ceiling.
   (c) The inventory of unsold gas increased and gas stations incurred losses.
   (d) Gas stations ran out of gas as the quantity of gas demanded exceeded the quantity supplied.

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7. The production of an industrial good in a plant emits harmful gases that cause breathing difficulty. Which of the following will happen if the government imposes a Pigouvian tax on the plant?
   (a) The quantity supplied of the good will decrease.
   (b) Marginal private cost will fall.
   (c) Marginal external cost will increase.
   (d) The demand for the good will increase.

8. Which of the following statements is **true**?
   (a) Countercyclical fiscal policy slows down the growth rate of an economy during an expansion by shifting the labor demand curve to the right.
   (b) Countercyclical fiscal policy stimulates the economy during a recession by shifting the labor demand curve to the left.
   (c) Countercyclical monetary policy slows down the growth rate of an economy during an expansion by shifting the labor demand curve to the left.
   (d) Countercyclical monetary policy stimulates the economy during a recession by shifting the labor demand curve to the left.

Income	Rate
\$0 to \$8,925	10%
\$8,925 to \$36,250	15%
\$36,250 to \$87 ,850	25%
\$87 ,850 to \$183,250	28%
\$183,250 to \$398,350	33%
\$398,350 to \$400,000	35%
\$400,000 and above	39.6%

9. Refer to the above table. If Eden earns \$250,000 last year, what is (1) his marginal tax rate, and (2) his total tax payable?
   (a) 28%, \$66630.75
   (b) 28%, \$67650.25
   (c) 33%, \$66,630.75
   (d) 33%, \$67650.25

10. The implication of the Solow model is that for sustained growth:
   (a) The ratio of capital stock to GDP should decreases the economy grows over time.
   (b) The ratio of capital stock to GDP should be constant as the economy grows over time.
   (c) The ratio of savings rate to depreciation rate should increase as the economy grows over time.
   (d) The ratio of savings rate to depreciation rate should decrease as the economy grows over time.

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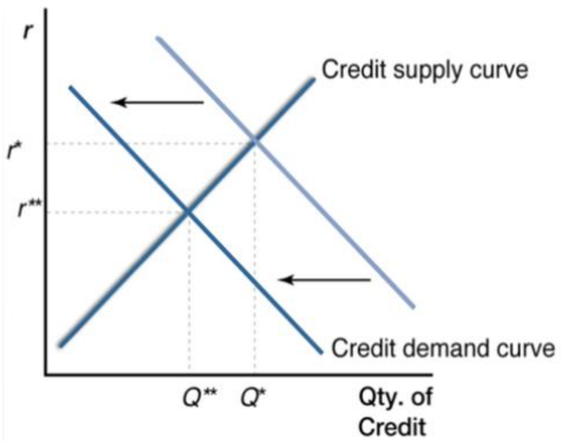
11. Which of the following statements is **true**?
    (a) Unemployment will be higher if there is a leftward shift in the labor demand curve and there is no wage rigidity, everything else remaining unchanged.
    (b) There will be no change in unemployment if there is a leftward shift in the labor demand curve and there is wage rigidity, everything else remaining unchanged.
    (c) There will be an increase in unemployment if there is a leftward shift in the labor demand curve and there is no wage rigidity, everything else remaining unchanged.
    (d) Unemployment will be higher if there is a leftward shift in the labor demand curve and there is downward wage rigidity in the labor market, everything else remaining unchanged.



12. Which event would be coincided with the credit market comparative static graph above?
    (a) Businesses become more optimistic about the future of the economy and decide to distribute more of their earnings as dividends to their shareholders.
    (b) Households begin to buy more houses and apply more mortgages since the housing price boom.
    (c) A new policy of building the metro system in six cities costs $88 billions and the government should borrow money to deal with it.
    (d) Congress agrees to a reduction in the government deficit, which results in a significant decrease of government borrowing.

13. Which of the following statements correctly identifies a reason inflation can be used as a countercyclical policy tool?
    (a) Inflation reduces money costs and hence stimulates an economy during slowdowns.
    (b) Inflation increases consumer demand, which is necessary for combating slowdowns.
    (c) Inflation increases consumer confidence, which is an absolute necessity to counter act business cycles.
    (d) Inflation sometimes increases the demand for workers, which increases output and helps combat slowdowns.

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14. Which of the following statements is **true**?
   - (a) The quantity theory of money explains the relationship between growth in real GDP and changes in nominal interest rates.
   - (b) One of the advantages of using money is that it does allow for the transfer of purchasing power into the future.
   - (c) The Fed cannot influence the money supply in the economy by influencing the required amount of reserves.
   - (d) If there are no changes in inflation expectations, a purchase of government bonds by the Fed in the open market will cause both the federal funds rate and long-run expected real interest rate to rise.

15. Which of the following statements is likely to be **true**?
   - (a) Everything else equal, a decrease in the supply of dollars in exchange for pesos will cause the dollars to depreciate against the pesos and will decrease the quantity of dollars being traded in the foreign exchange market.
   - (b) Everything else equal, an increase in the supply of dollars in exchange for pesos will cause the dollars to depreciate against the pesos and will decrease the quantity of dollars being traded in the foreign exchange market.
   - (c) If a country wants to keep a foreign currency undervalued against the domestic currency, it will buy the foreign currency and sell the domestic currency.
   - (d) If a country wants to keep the domestic currency overvalued against a foreign currency, it will buy the domestic currency and sell the foreign currency.

16. Which of the following statements is **true**?
   - I. A perfectly competitive industry produces an efficient level of output, since P = MC for the last unit produced in this industry.
   - II. A monopoly produces an efficient level of output, since MR = MC for the last unit produced by this monopoly.
   - III. A perfectly price-discriminating monopolist produces an efficient level of output, since the value consumers are willing to pay for the last unit sold is equal to the cost of producing this last unit.
   - (a) Statement I is true.
   - (b) Statements I and II are true.
   - (c) Statements I and III are true.
   - (d) Statements I, II, and III are true.

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17. In the open-economy macroeconomic model, the key determinant of net capital outflow is the
   (a) real exchange rate. When the real exchange rate rises, net capital outflow rises.
   (b) real exchange rate. When the real exchange rate rises, net capital outflow falls.
   (c) real interest rate. When the real interest rate rises, net capital outflow rises.
   (d) real interest rate. When the real interest rises, net capital outflow falls.

Please use the following scenario to answer questions 18–20.
Scenario: Take the following information as given for a small economy:
When income is $10,000, consumption spending is $6,500
When income is $11,000, consumption spending is $7,250

18. The marginal propensity to consume for this economy is
   (a) 0.650
   (b) 0.750
   (c) 0.650 or 0.664, depending on whether income is $10,000 or $11,000
   (d) 0.800

19. The multiplier for this economy is
   (a) 2.85
   (b) 1.53
   (c) 4.00
   (d) 7.00

20. For this economy, an initial increase of $200 in net exports translates into a(n)
   (a) $570 increase in aggregate demand when the crowding-out effect is taken into account.
   (b) $800 increase in aggregate demand when the crowding-out effect is taken into account.
   (c) $1,400 increase in aggregate demand in the absence of the crowding-out effect.
   (d) $800 increase in aggregate demand in the absence of the crowding-out effect.

二、複選題，每題至少有一個選項為真。每個選項皆為一分。(13 分)

1. Stark and Potts would like to spend their nights together. ae following table lists their rank for the activities. Which activities are Pareto efficient?

	Stark's Preference	Potts's Preference
Basketball Game	5th	1st
Movie	4th	3rd
Football Game	1st	4th
Opera	2nd	5th
Baseball Game	3rd	2nd

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(a) Basketball game
(b) Football game
(c) Baseball game
(d) Movie
(e) Opera

2. There are many identical firms produce nuca-cola in a competitive market. In the short run, the average variable cost curve of a firm initially slope down and then slope up. Please select all the **false** statements.
   (a) To maximize the firm's profit, this firm should produce where its average total cost equals the market price.
   (b) This firm should shut down when it produces at the quantity such that its marginal cost exceeds its average variable cost.
   (c) Suppose you have a talent to run a coke factory to produce more nuca-cola with lower costs. Then in the long run, other firms earn zero profits and the firm you run earns a positive profit.
   (d) A nuca-cola formula is invented, making nuca-cola cheaper, more delicious, healthier. And the most important, new nuca-cola has lower calories. After upgrading, the number of obese nuca-cola drinkers will decrease.

3. Refer to the table above. Please select all the **true** statements.
   (a) OPEC failed to maintain a high price of oil in the long run, partly because both the supply of oil and the demand for oil are more elastic in the long run than in the short run.
   (b) Price control of the housing market reallocates surplus from one side to the other through the price mechanism.
   (c) China's one-child policy was planned to reduce the country's population and limit the demand for natural resources. This policy shifts China's PPC inward.
   (d) If the government imposes a binding price ceiling in a market, then the producer surplus in that market will increase.

三、計算問答題，請詳述計算過程與說明，可使用中文或英文回答。(27 分)

1. (12 points) Two players are playing a game. Player 1 is given $100 and is asked to offer a certain share of the money to Player 2. Player 2 can then choose to accept or reject the offer. If he accepts the offer, the money will be split between the two players in the ratio as decided by Player 1. If he rejects the offer, neither of the players will get anything.
   (a) (4 points) Assume that both players prefer more money to less. How would Player 1 choose his optimal strategy in this case?

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(b) (4 points) Solve all the Nash Equilibria in the game above.

(c) (4 points) Suppose, after Player 1proposed an offer (\$x, \$(100-x)) with x≥0, Player 3 flips a fair coin. If the "Head" occurs, the \$x is assigned to Player 1 and \$(100-x) is assigned to Player 1. Solve all the Nash Equilibria in this revised game.

2. (7 points) ABC's satellite company broadcasts TV to subscribers in Taipei (T) and Kaohsiung (K) ABC is a monopolist. The demand functions are given by:

$$Q_T = 50 - \frac{1}{3}P_T$$
$$Q_K = 80 - \frac{2}{3}P_K$$

where Q is in thousands of subscriptions per year and P is the subscription price per year.ae cost of providing Q units of service is given by:

$$TC = 1,000 + 30Q$$

where $Q = Q_T + Q_K$.

(a) (3.5 points) What are the profit-maximizing prices and quantities for the Taipei and Kaohsiung markets if ABC is a price discriminating monopolist?

(b) (3.5 points) As a consequence of a new satellite that the Pentagon developed, subscribers in Taipei are now able to get the Kaohsiung broadcast and vice versa, so ABC can charge only a single price. What price should ABC charge?

3. (8 points) Classify the following goods as (1) private goods, (2) common resources, (3) club goods, or (4) public goods.

(a) (2 points) Private health insurance: ___

(b) (2 points) Radio spectrum without government regulation: ___

(c) (2 points) A mosquito control program in a city: ___

(d) (2 points) A library's collection of e-books: ___