系 所 別：運籌管理系　　　　　　組 別：一般管理組
考科代碼：2312　　　　　　　　　考 科：經濟學

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注意事項：
1、本科目得使用本校提供之電子計算器。
2、請於答案卷上規定之範圍作答，違者該題不予計分。

1. The number of taxicabs in Jeremyland and the taxicab fares are regulated. The fare currently charged is $50 a ride. Jeremyland taxicab drivers want to obtain government's permission to raise the fare to increase their revenues and ask you to be their economic adviser. After studying the market, you come up with the following demand schedule for taxicab rides:

Price (dollars per ride)	Quantity demanded (rides per day)
30	160
40	120
50	80
60	40
70	0

(1) Calculate the price elasticity of demand for taxicab rides as the fare rises from $50 to $60. (Use the midpoint method in your calculations.) Is the demand price elastic or inelastic for this fare rise? （5 points）

(2) What happens to the taxicab drivers' total revenue if the fare rises from $50 to $60? How can you use your answers in part (1) to answer this question? Should the drivers try to obtain permission to raise the fare? （5 points）

(3) What fare will maximize the taxicab drivers' total revenue? Explain. （5 points）

2. Wu's champion-bread production function is shown in the table below.

(1) Suppose Wu operates Store 2. He hires 2 workers and produces 200 loaves of champion-bread a day. Is the adopt technologically efficient? Why or why not? （5 points）

(2) Suppose Wu operates Store 3. What is the marginal product of labor when the third worker is hired? When operating Store 3, does Wu experience diminishing marginal returns? Explain. （5 points）

(3) If Wu hires workers at a wage rate of $1,500 a day and his total fixed cost is $1,000 for Store 1. Calculate Wu's average total costs for Store 1. Draw the short-run average total cost curve and illustrate his long-run average cost curve. （10 points）

(4) If Wu wants to produce 340 loaves of bread per day, what store size should he choose? Over what output range is it efficient to operate Store 1? （5 points）

Labor (# of workers)	Output (loaves per day)		
	Store 1	Store 2	Store 3
1	80	110	130
2	180	220	240
3	260	300	330
4	310	360	400
5	340	400	450
6	350	420	480
7	330	400	470
# of Ovens	1	2	3

3. The table below shows the market demand schedule in an industry that has two firms in it. The marginal cost of this product is zero because these two firms own the resource and it costs nothing to produce additional units.

Price (dollars per unit)	Quantity demanded (units)
300	0
250	100
200	200
150	300
100	400
50	500
0	600

(1) If two firms cooperate with each other so that they operate as a monopoly, what price will they charge and what output will they produce individually? （5 points）

(2) If the firms cannot cooperate but instead behave as perfect competitors, what will be the price and the total output in the market? （5 points）

4. (1) In D country with a working-age population of 100 million, 70 million workers are employed and 5 million workers are unemployed. What is the labor force participation rate? （5 points）

(2) In D country with a working-age population of 130 million, 90 million workers are employed and 10 million workers are unemployed. What is the unemployment rate? （5 points）

5. (1) At the end of 2011, the Consumer Price Index was equal to 163.8 and at the end of 2010 it was equal to 157.5. What is the inflation rate over this time period? （5 points）

(2) The CPI basket contains 400 oranges and 800 pens. In the base year, the price of an orange is $1.00 and the price of a pen is $0.75. This year, urban consumers buy 200 oranges at $2.00 each and 900 pens at $1.00 each. What is the CPI of this year？ （5 points）

6. (1) During 2007, X country had a real GDP of $115 billion and the population was 0.9 billion. In 2006, real GDP was 105 billion and the population was 0.85 billion. In 2006, what was the real GDP per person? （5 points）

(2) During 2007, X country had a real GDP of $115 billion and the population was 0.9 billion. In 2006, real GDP was 105 billion and the population was 0.85 billion. What is the X country's growth rate of real GDP per person? （5 points）

7. (1) Mary deposits $4,000 in currency in your checking account. The bank holds 20 percent of all deposits as desired reserves. As a direct result of her deposit, how much does her bank will create new money？ （5 points）

(2) When the monetary base increases by $2 billion, the quantity of money increases by $10 billion. Thus, what does the money multiplier equal？ （5 points）

8.

Item	Billions of dollars
Imports of goods and services	750
Exports of goods and services	1,000
Net interest income	-50
Net transfers	-50
A country investment abroad	-350
Foreign investment in the A country	200

(1) The data in the table above is the balance of payments of A country. What is the capital account balance? （5 points）

(2) If there is no statistical discrepancy, what is the balance in the official settlements account? （5 points）