

科目：經濟學 適用：財金系二

編號：241

考生注意：

1. 依次序作答，只要標明題號，不必抄題。
2. 答案必須寫在答案卷上，否則不予計分。
3. 限用藍、黑色筆作答；試題須隨卷繳回。

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Entrance Exam : Economics

## I Multiple Choices (30% , 每題 3%)

1.  $U = x + y$ , they originally cost 10 and 9 respectively. Your income was 720. The price of x drops to 8, which of the following is true?
  - a) The income effect increases the quantity of y by 90.
  - b) The Hicks substitution effect increases the quantity of y by 90.
  - c) The Hicks substitution effect increases the quantity of x by 80.
  - d) The income effect increases the quantity of x by 80.
  - e) None of the above.
2. James earns 15 dollars hour. He has \$720 non-labor income per week. He has 72 hours a week available for either labor or leisure. His utility function is  $U(C,R) = CR$  where C is dollars worth of goods and R is hours of leisure. How many hours per week will he work?
  - a) 24
  - b) 12
  - c) 36
  - d) 15
3. The marginal cost for a multiplant monopolist is equal to
  - a) the horizontal sum of the marginal cost of production from each plant.
  - b) the vertical sum of the marginal cost of production from each plant.
  - c) the marginal cost of the largest plant.
  - d) the marginal cost of the smallest plant.

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4. The practice of charging different consumers different prices for the same product is known as

- a) price discrimination. ~~b) bundling.~~ c) tie-in sales.  
d) two-part tariffs.

5. In a given year, a country's GDP = \$9841, net factor payments from abroad = \$889, taxes = \$869, transfers received from the government = \$296, interest payments on the government's debt = \$103, consumption = \$8148, and government purchases = \$185. The country had private saving equal to

- a) \$285. b) \$3850. c) \$2397. ~~d) \$2112.~~

6. The marginal product of labor (measured in units of output) for Expando Corp. is given by

$$MPN = A(400 - N)$$

where A measures productivity and N is the number of labor hours used in production. Suppose the price of output is \$3 per unit and A = 2.0. What will be the demand for labor if the nominal wage is \$18?

- a) 107      b) 197      ~~c) 57.~~      d) 397

7. An economy has full-employment output of 5000. Government purchases are 1000. Desired consumption and desired investment are given by

$$C^d = 3000 - 2000r + 0.10Y \quad I^d = 1000 - 4000r$$

where Y is output and r is the real interest rate. The real interest rate that clears the goods market is equal to

- a) 8.33%      b) 25%      ~~c) 2.5%~~      d) 1.25%

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8. Keynesian economists believe that in the short run
- a) money neutrality does not exist and prices do not adjust rapidly.
  - b) money neutrality exists and prices adjust rapidly.
  - c) money neutrality does not exist and prices adjust rapidly.
  - d) money neutrality exists and prices do not adjust rapidly.

9. If you expect a general price increase of 5% this year and the price of the hamburgers you sell increases by 10%, you would conclude that the relative price of your good has
- a) declined, and you would decrease your output.
  - b) declined, and you would increase your output.
  - c) increased, and you would increase your output.
  - d) increased, and you would decrease your output.

10. A firm faces the following relationship between the real wage it pays and the effort exerted by its workers.

Real Wage	Effort (E)
10	20
11	24
12	27
13	29

The marginal product of labor for this firm is given by  $MPN = E(100 - N)/9$ . How many workers will the firm employ?

- a) 88
- b) 80
- c) 92
- d) 96

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## II. Problem (70%)

1. Suppose there is only one ice cream stand in town. The marginal cost per hour for an ice cream stand is \$1.00. The demand per hour for ice cream is  $p = 5 - q$ .

(1) What is the profit maximizing output level per hour and price level per hour for the ice cream stand? (5%)

(2) How much profit will the owner of the ice cream stand earn? (You must provide complete calculation) (5%)

(3) Show your figures (2%)

(4) Find consumer surplus, producer surplus and Deadweight loss (3%)

2. Suppose ABC Corporation is a monopolist with three plant facilities. The marginal cost for Facility A is  $5 + q_A$ , the marginal cost for Facility B is  $8 + q_B$ , and the marginal cost for Facility C is  $10 + q_C$ . The demand for the industry is  $p = 14 - 0.5q$ .

(1) How much should ABC Corporation produce to maximize profit? (3%)

(2) How much should be produced in each facility? (3%)

(3) What price should the firm charge for each unit of output? (3%)

(4) How much profit will the owner of the ice cream stand earn? (3%)

(5) Show your figures (3%)

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3. An economy has full-employment output of 5000. Government purchases are 1000. Desired consumption and desired investment are given by

$$C^d = 3000 - 2000r + 0.10Y$$

$$I^d = 1000 - 4000r$$

where  $Y$  is output and  $r$  is the expected real interest rate.

- (1) Find the real interest rate that clears the goods market. Assume that output equals full-employment output. (1%)
- (2) Calculate the amount of saving, investment, and consumption in equilibrium. (6%)

- (3) If a shock to wealth causes desired consumption to decline by 200 (so that the new equation for desired consumption is

$$C^d = 2800 - 2000r + 0.10Y)$$

- find the equilibrium (i) real interest rate (ii) saving (iii) investment (iv) consumption. (8%)

4. Desired consumption is  $C^d = 2000 + 0.9Y - 100,000r - G$ , and desired investment is  $I^d = 1000 - 45,000r$ . Real money demand is  $M^d/P = Y - 6000i$ . Other variables are  $\pi^e = 0.03$ ,  $G = 500$ ,  $\bar{Y} = 1000$ , and  $M = 2100$ .

- (1) Show IS and LM equation and Find the equilibrium values of the real interest rate, consumption, investment, and the price level. (10%)
- (2) Suppose government purchases decline to 400. What happens to the variables listed in part (1)? Is fiscal policy neutral? (5%)
- (3) Suppose government purchases rise to 600. What happens to the variables listed in part (1)? Is there the perfect crowding-out effect? What is the amount of the crowding-out effect? (10%)