國立高雄大學 113 學年度研究所碩士班招生考試試題

科目：經濟學

考試時間：100 分鐘

系所：財務金融學系(財務金融組、經營管理組)

是否使用計算機：是

本科原始成績：100 分

I. Multiple Choice Questions (select one answer choice, 4 points each, total 60 points)

1. In the case of an unanticipated inflation:
(a) creditors with an unindexed contract are hurt because they get less than they expected in real terms.
(b) creditors with an indexed contract gain because they get more than they contracted for in nominal terms.
(c) debtors with an unindexed contract do not gain because they pay exactly what they contracted for in nominal terms.
(d) debtors with an indexed contract are hurt because they pay more than they contracted for in nominal terms.

2. In the long run, the level of national income in an economy is determined by its:
(a) factors of production and production function.
(b) real and nominal interest rate.
(c) government budget surplus or deficit.
(d) rate of economic and accounting profit.

3. A competitive, profit-maximizing firm hires labor until the:
(a) marginal product of labor equals the wage.
(b) price of output multiplied by the marginal product of labor equals the wage.
(c) real wage equals the real rental price of capital.
(d) wage equals the rental price of capital.

4. If the reserve–deposit ratio is less than one, and the monetary base increases by $1 million, then the money supply will:
(a) increase by $1 million.
(b) decrease by $1 million.
(c) increase by more than $1 million.
(d) decrease by more than $1 million.

5. If the LM curve is vertical and government spending rises by G, in the IS-LM analysis, then equilibrium income rises by:
(a) G/(1 – MPC).
(b) more than zero but less than G/(1 – MPC).
(c) G.
(d) zero.

6. A liquidity trap occurs when:
(a) banks have too much currency and close their doors to new customers.
(b) the central bank mistakenly prints too much money generating hyperinflation.

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(c) interest rates fall so low that monetary policy is no longer effective.

(d) dams and locks are built to prevent flooding.

7. If the replacement cost of installed capital equals \$20 trillion and the market value of installed capital equals \$25 trillion, then according to q theory, businesses should:

(a) add to capital stock.

(b) let capital stock shrink.

(c) keep capital stock unchanged.

(d) reduce product prices to increase profits.

8. For a perfectly competitive firm, $STC=100+20q+q^2$ and $SMC=20+2q$, where q is output. If the market price is equal to 40, at what level of output should the firm operate to maximize profit in the short run?

(a) 10

(b) 20

(c) 30

(d) 40

9. Suppose the consumer's income elasticity for good x is -0.10 when monthly income is \$1,000, and the consumer's income elasticity for good x is 0.10 when monthly income is \$2,000. From this information we can infer that

(a) good x is an inferior good for low levels of income and a superior good for high levels of income.

(b) good x is a normal good for low levels of income and an inferior good for high levels of income.

(c) good x is an inferior good for low levels of income and a normal good for high levels of income.

(d) good x is a Giffen good.

10. Suppose the consumer's utility function is given by $U(x,y) = xy + y$. The price of good x is P_x and the consumer's income is I. The equation for this consumer's demand curve for x when $I > P_x$ is:

(a) $x^d = 0$

(b) $x^d = I/(2P_x)$

(c) $x^d =[I/(2P_x)] – (1/2)$

(d) $x^d = 1/2$

11. Suppose that a firm uses only two inputs in its production process. The ratio of the marginal products of these inputs always exceeds the ratio of the prices of the inputs. What can you say about the cost-minimizing point of the firm?

(a) It is an interior solution.

(b) If a cost-minimizing point exists, it must be at a corner.

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(c) A cost-minimizing point must not exist.

(d) Costs must be negative at the cost-minimizing point.

12. Suppose that firms A and B are Cournot duopolists in the salt industry. The market demand curve can be specified as $P=200-Q_A-Q_B$. The marginal cost to each firm is $40. What is firm B's profit-maximizing quantity when firm A produces an arbitrary output Q_A?

(a) $Q_B=160-Q_A$.

(b) $Q_B=160-2Q_A$.

(c) $Q_B=80-Q_A$.

(d) $Q_B=80-(1/2)Q_A$.

13. What must be true for the provision of wireless service in an airport to be considered a public good?

(a) It must be free and it must include the use of a laptop with no charge also.

(b) It must be free and it would still be considered a public good even though additional users may crowd people off the network or make it too slow to utilize effectively.

(c) It must be free and it must have enough excess capacity in the network such that additional users do not reduce the ability of other individuals to utilize the network.

(d) It must be available to all, but the airport could charge for access to the service.

14. With first-degree price discrimination, the marginal revenue curve:

(a) is the same as the demand curve.

(b) is above the demand curve.

(c) is below the demand curve, with slope equal to twice the slope of demand.

(d) is below the demand curve, with slope equal to one-half the slope of demand.

15. Consider a perfectly competitive market with market supply $Q^s = -2+P$ and market demand $Q^d=30-P$. Suppose that the government imposes an excise tax of $4 per unit on this market. What is total surplus (consumer surplus plus producer surplus) after the government imposes the tax?

(a) 72

(b) 98

(c) 144

(d) 196

II. Essay Question 1 (5 points each, total 20 points)

1. Assume that a country's production function is $Y = AK^{0.3}L^{0.7}$. The ratio of capital to output is 3, the growth rate of output is 3 percent, and the depreciation rate is 4 percent. Capital is paid its marginal product.

(a) What is the marginal product of capital in this situation?

(b) If the economy is in a steady state, what must be the saving rate?

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(c) If the economy decides to achieve the Golden Rule level of capital and actually reaches it, what will be the marginal product of capital?

(d) What must the saving rate be to achieve the Golden Rule level of capital?

III. Essay Question 2 (10 points each, total 20 points)

2. (a) A major software developer has estimated the demand for its new personal finance software package to be $Q = 1,000,000P^{-2}$ while the total cost of the package is $C = 100,000 + 25Q$. If this firm wishes to maximize profit, what percentage markup should it place on this product?

(b) A competitive firm produces output using three fixed factors and one variable factor. The firm's short-run production function is $q = 305x - 2x^2$, where x is the amount of variable factor used. The price of the output is \$2 per unit and the price of the variable factor is \$10 per unit. In the short run, how many units of x should the firm use?