

單選題

計 25 題，每題答對得 4 分，答錯倒扣 1 分，請按序作答。

1. In the long run,
 - a the price elasticity of demand is greater than in the short run;
 - b the income elasticity of demand is greater than in the short run;
 - c the price elasticity of demand is less than in the short run;
 - d the income elasticity of demand is less than in the short run;
 - e a and b.
2. A cut in taxes on interest earnings will
 - a have no effect on the budget constraint between current and future consumption;
 - b shift the budget constraint out in a parallel way;
 - c rotate the budget constraint, making it flatter;
 - d rotate the budget constraint, making it steeper;
 - e put a kink in the budget constraint.
3. A risk-neutral individual
 - a always invests in a wide variety of financial instruments;
 - b only cares about the expected return, not the risk;
 - c only cares about the risk, not the expected return;
 - d cares about both the expected return and the risk;
 - e none of the above.
4. Many positions in government carry little risk of job loss. On the other hand, some similar jobs in the private sector offer much less job security. Which of the following is most likely?
 - a The government jobs will pay more because government workers have more human capital.
 - b Private sector jobs will pay more as a compensating differential for the lower job security.
 - c Each type of job will pay the same.
 - d No one will choose to work in the private sector.
 - e None of the above.
5. The concept of economies of scope means that
 - a it is less expensive to produce a variety of goods together than to produce them separately;
 - b it is more expensive to produce a large quantity than a small quantity;
 - c the average cost of production is lower when a larger quantity is produced;
 - d the marginal cost curve is downward sloping;
 - e a and b
6. It pays a firm to enter a market whenever
 - a the market price is greater than the minimum average cost at which the firm can produce;
 - b the firm can earn revenues greater than any non-recoverable costs;
 - c price is greater than the minimum of the average variable cost curve;
 - d price equals marginal cost;
 - e marginal revenue equals marginal cost.
7. Which of the following is not necessarily true when the economy is in full, general equilibrium?
 - a The supply of labor equals the demand.
 - b The supply of products equals the demand.
 - c The supply of capital equals the demand.
 - d The distribution of income is fair.
 - e All of the above are true when the economy is in equilibrium.

8. The market demand curve is the same as the demand curve facing the firm when the market structure is
- a perfect competition;
 - b monopoly;
 - c oligopoly;
 - d monopolistic competition;
 - e all of the above.
9. A firm may use excess production capacity to
- a deceive potential entrants into believing that business is bad;
 - b threaten potential entrants with increased production of they come into the market;
 - c confuse potential entrants about the cost of production;
 - d increase its rival's costs;
 - e none of the above.
10. Regulated natural monopolies often
- a invest too much;
 - b invest too little;
 - c hire too much labor;
 - d hire too few workers;
 - e sell too much output.
11. Which of the following is true?
- a Competition drives firms that do not innovate from the market.
 - b Competition inhibits innovation by eliminating profits that could be used to finance R&D.
 - c Competition leads firms to imitate innovations, eroding returns.
 - d Competition spurs R&D by making it clear that the principal way to earn profits is to innovate and capture market power.
 - e All of the above.
12. In markets with imperfect information,
- a firms are price takers;
 - b firms set prices, taking into account the effect that price has as a signal of quality;
 - c price plays no role because consumers are uncertain about quality;
 - d markets clear for the usual reasons;
 - e there is a uniform market price per unit of quality, but the goods of different firms sell for different price.
13. When workers are not aware of alternative job possibilities,
- a firms may take advantage of their information-based market power and raise wages;
 - b firms may take advantage of their information-bade monopsony power and lower wages;
 - c workers can earn compensating differentials;
 - d all similar workers must earn the same wage for jobs with the same characteristics;
 - e none of the above.
14. The value-added approach to GDP
- a adds up the differences between the revenues and costs of intermediate goods;
 - b adds up all income received by individuals and governments in the economy;
 - c subtracts the inflation rate from the nominal GDP;
 - d adds the value of goods, services, and the environment;
 - e adds the total money value of goods and services purchased by their ultimate users.

15. Suppose that the aggregate demand curve shift to the right. If the intersection with aggregate supply lies along the flat portion of the aggregate supply curve, then
- a wages increase;
 - b product price increase;
 - c output increases;
 - d output and product prices increase;
 - e wages, output, and product prices increase.
16. Unemployment results if
- a the demand for labor shifts to the left, and wages fail to adjust;
 - b the supply of labor shifts to the left, and wages fail to adjust;
 - c the demand for labor shift to the right, and wages fail to adjust;
 - d the supply of labor shifts to the right, and wages fail to adjust;
 - e a and d.
17. An upward shift in the aggregate expenditures schedule occurs when
- a households, firms, and government decide to spend more at each level of income;
 - b households, firms, and government decide to spend less at each level of income;
 - c households, firms, and government decide to spend less at each price level;
 - d households, firms, and government decide to spend more at each price level;
 - e the economy is in recession.
18. Which of the following are reasons why consumption depends more on current income than the future-oriented theories might suggest?
- a Individuals can postpone purchases of durable goods when current income falls.
 - b Banks are reluctant to lend money to people whose current income is low;
 - c Individuals can see through the corporate veil, reducing their consumption when profits fall.
 - d Government tax and spending policies do not affect individual consumption.
 - e a and b.
19. An increase in both government spending and taxes, keeping the overall budget balanced, will
- a shift the aggregate expenditures schedule up;
 - b leave the aggregate expenditures schedule unchanged;
 - c shift the aggregate expenditures schedule down;
 - d rotate the aggregate expenditures schedule to the left;
 - e rotate the aggregate expenditure schedule to the right.
20. An increase in the price of an important imported good, such as oil, causes
- a a rightward shift in aggregate demand;
 - b a leftward shift in aggregate demand;
 - c a rightward shift in aggregate supply;
 - d a leftward shift in aggregate supply;
 - e a rightward shift in both aggregate demand and supply.
21. During recessions, firms perceive that
- a cutting prices is riskier than cutting production;
 - b increasing prices is riskier than increasing production;
 - c cutting production is riskier than cutting price;
 - d increasing production is riskier than increasing price;
 - e none of the above.

22. Which of the following is not included in M1?
- a currency;
 - b demand deposits (checking accounts);
 - c traveler's checks;
 - d certificates of deposit;
 - e All of the above are included.
23. The opportunity cost of holding money is
- a the exchange rate;
 - b the velocity;
 - c the real interest rate;
 - d the nominal interest rate;
 - e none of the above.
24. Volatile exchange rates make international trade
- a more profitable;
 - b riskier;
 - c safer than domestic trade;
 - d impossible;
 - e none of the above.
25. If people expect inflation to be higher, then the
- a Phillips curve is vertical in the short run;
 - b Phillips curve shifts to the right;
 - c Phillips curve shifts to the left;
 - d Phillips curve does not shift, because it assumes that expectations are always rational;
 - e Phillips curve is horizontal in the long run.

請回答下列問題·每題廿分·

- 一、在臺灣，若想使用資本資產訂價模型，估算資金成本，應如何決定相關因子之數值？
- 二、敏感性分析在資本預算中有何功用？若一日商擬在高雄投資小客車製造廠，要做那些敏感性分析？
- 三、中樹傢具公司決定投資發展自有產品之發貨倉庫業務，請問事成後，財務報表上的那些相關科目會發生甚麼樣的變化？那些財務比率可用以監督其效率？
- 四、假設庫藏股制度已開始實施，企業的財務管理可能發生那些變化？
- 五、目前談論前往東南亞購併之風正熾，請分析進軍東南亞之風險。

一、(10%) Of the incoming freshmen at a midwestern university 25% drop out by their sophomore year. Find the probability of more than 140 students dropping out from a class of 500.

Z_{0.940} = 1.5548 Z_{0.939} = 1.5464

二、(15%) An office manager sends 10 secretaries to a week-long course to improve their typing speed. The manager times their speed before and after the course to see if the course is worth the lost time and expense. State the appropriate null and alternative hypotheses and test the null hypothesis with alpha = .025.

Find a 95%

confidence interval for the mean increase in typing speed.

Speed after Course	Speed before Course
55	50
46	42
78	70
61	63
52	58
45	35
47	46
57	52
71	60
58	49

t_{0.025,9} = 2.26 t_{0.025,10} = 2.23

三、(15%) Stocks in a large investment portfolio are classified according to how much gain (or loss) they have experienced in the last 12 months, and on whose recommendation they were bought, resulting in the following table of frequencies.

		Broker			Total
		A	B	C	
Change in Stock Value	> 20%	1	2		6
	10% to 20%	13	12		45
	0% to 10%	20	20		60
	- 10% to 0%	2	2		20
	< - 10%				12
Total		48	36	59	143

Assume that one stock is selected at random from the 143 stocks in the portfolio.

- (a) Fill in the blanks in the frequency table and convert it to a joint probability table.
- (b) Find the probability that the selected stock had a gain of over 20%.
- (c) Find the conditional probability that Broker C had recommended that stock, given that the stock increased over 20%.
- (d) Find the probability that the stock decreased in value.
- (e) Find the conditional probability that Broker A had recommended the stock given that the stock decreased in value by more than 10%.

四、(10%) A bank is considering a checking account system that will pay no interest for accounts having a minimum monthly balance of less than \$500, 5.25% interest for accounts with \$500 to \$5000, and 7.25% interest for accounts with over \$5000. The bank thinks the respective proportion of accounts in each of these categories is 45%, 40%, and 15%. A random sample of 400 accounts is obtained with the results given below. Use a chi-square goodness of fit test to compare these sample observations with the hypothesized proportions. Use alpha = .05 and state the p-value.

Number of Checking Accounts	Less than \$500	\$500 to \$5000	More than \$5000	Total
	165	170	75	400

chi^2_{0.05,2} = 5.99 chi^2_{0.1,2} = 4.610 chi^2_{0.05,3} = 7.82 chi^2_{0.1,3} = 6.25

五、(20%)

A bank is considering a policy of paying passbook interest on checking accounts that maintain a minimum monthly balance of at least \$500. Such accounts are said to qualify for the "500 Club." The bank manager feels that more than 40% of the checking accounts will qualify for earned interest under this plan. The manager of a branch office of the bank wants to test the null hypothesis H_0 : The proportion of accounts qualifying for the "500 Club" is at most 40%. The manager randomly selects 20 of the accounts at his branch and counts the number of accounts that qualify for the "500 Club."

- (a) Formulate the appropriate alternative hypothesis.
- (b) The test statistic has a binomial distribution with $n = 20$ and $p \leq .4$ when H_0 is true. Consult with $p = .4$ and $n = 20$ to construct a decision rule having a level of significance of approximately .05 and state the exact level of significance associated with your decision rule.
- (c) If the branch manager finds $T = 11$ of the 20 accounts qualify for the "500 Club," What decision is made regarding the null hypothesis?
- (d) What is the p -value associated with the observed value of the test statistic $T = 11$? Interpret this p -value.

六、(15%)

Quarterly data for the same three-year period covered by the stock beta example given in this section have been obtained for an electric power company. Percentage increase in the value of one share of the electric company stock is given below along with a similar calculation for the Standard and Poor's 500 Stock Index. Find the stock beta for the electric company. Also find the value of r^2 for these data.

Quarter	Percentage Increase for the Stock Index	Percentage Increase for the Electric Company
1	-4.3	-2.7
2	-9.6	-8.0
3	-5.4	-3.0
4	-0.2	-1.9
5	4.9	2.5
6	1.8	0.7
7	1.3	2.9
8	-1.3	-0.2
9	5.1	5.2
10	-1.6	0.5
11	-9.7	-7.5
12	-12.8	-7.1

七、(15%)

Given below is the computer printout for the least squares fit of the model $y = \beta_0 + \beta_1x + \beta_2x^2$ to the sample data.

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PR > F
MODEL	2	184076.29	92038.14	127.83	.0001
ERROR	9	6479.96	720.00		
TOTAL	11	190556.25			

PARAMETER	ESTIMATE	T FOR H_0 : PARAMETER = 0	PR > T	STD ERROR OF ESTIMATE
INTERCEPT	4293.37	7.80	.0001	550.22
X	-2673.04	-6.61	.0001	404.59
X*X	425.20	5.79	.0003	73.45

- (a) Use the computer printout to write the least squares prediction equation.
- (b) Find the missing value of R SQUARE.
- (c) What percentage of the variation in Y is accounted for by this model?