

國立中山大學八十八學年度碩博士班招生考試試題

科目：經濟學

(財務管理學系碩士班)

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經濟學（一般生）總體經濟部份

選擇題：單選，每題五分

1. 政府公債的利息 (A)屬於NDP但不屬於NI的一部份 (B)不屬於NI但屬於PI (C)屬於NI但不屬於PI (D)屬於DI但不屬於PI

2. 若政府新增支出以發行新鈔作為財源，則依據一般IS-LM模型

$$Y = C_0 + cY + I_0 - \lambda r + G$$

$$M/P = L_0 + \alpha Y - \beta r$$

(A) IS與LM向右等幅移動 (B)均衡利率不會下跌 (C)投資需求增加 (D)若 $(1-c)^{-1} > \alpha^{-1}$ 則均衡利率會提高 (E)若 $(1-c)^{-1} > (\alpha + \beta)^{-1}$ 則均衡利率會提高

3. 一般IS-LM模型的平衡預算乘數小於一般凱因斯模型中的平衡預算乘數，因為 (A)IS-LM模型增稅對所得的影響較大 (B)IS-LM模型增稅導致利率上揚，致投資需求減少 (C)IS-LM模型的邊際消費傾向較小 (D)IS-LM模型有排擠效果 (E)IS-LM模型以稅為財源的政府支出使貨幣供給減少

4. 貨幣需求增加則 (A)IS-LM模型中導致利率下跌 (B)AS-AD模型中導致物價下跌 (C)簡單凱因斯模型中導致投資支出增加 (D)IS-LM-BP模型中導致本國貨幣貶值 (E)IS-LM-BP模型中導致所得上升

5. Potential output decreases as a result of (A)technological improvement (B)decreases in capital stock (C)decreases in the aggregate demand (D)increases in labor force (E)decreases in the growth rate of investment

6. If consumers decide to reduce autonomous consumption, in a typical IS-LM, AS-AD model, (A)the AD curve shifts to the right (B)the AD curve shifts to the left (C)the LM curve shifts to the left (D)the IS curve shifts to the right (E)the demand for investment curve shifts to the left

7. If interest rates are extremely high, people would normally hold more bonds and less cash, which of the following is not an appropriate reason? (A)the opportunity cost of holding cash is higher (B)there is greater chance of a decline in interest rates in the future (C)to hold bonds, there is a greater return for bearing risk (D)as interest rates rises, transaction costs fall

8. 依據凱因斯模型 $Y = C(Y-T) + I + G + NX(e, Y)$, $dNX/dc > 0$, $\partial NX/\partial Y < 0$, 下列何種方法不能縮減一國貿易赤字? (A)減少自發性進口 (B)減少自發性消費 (C)減少投資 (D)減少政府消費 (E)減稅

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9. 給定下列凱因斯模型

$$Y = C_0 + c(Y - T_0 - tY) + I + G + X_0 - (M_0 + mY)$$

政府支出不以增稅為財源，設政府支出與自發性進口等幅增加，則 (A) 政府預算赤字減少 (B) 貿易盈餘增加 (C) 均衡所得減少 (D) 進口總額減少 (E) 政府稅收不變

10. 生產函數 $y = N - N^2/4$ ，契約名目工資固定於 W_0 ，在此名目工資水準之下，經濟中存在大量失業人口願意接受任何工作，請導出總供給線的數學式，P 代表物價水準。(A) $y = 1 - W_0^2/P^2$ (B) $y = 3 + 2P/W_0$ (C) $y = 2 + 2P - W_0$ (D) $y = 1 + 2P + P^2/W_0$ (E) $y = 1 + 3P - 2W_0$

個體經濟學

簡答題(每題 10 分, 共計 50 分)

1. 某一消費者之偏好可以用 $U(X_1, X_2) = X_1^{\alpha_1} X_2^{\alpha_2}$ 代表之。若已知市場價格 P_1, P_2 及消費者之所得為 M ，請推論該消費者對 X_1 及 X_2 之價格需求曲線為何？
2. 已知某一廠商之成本函數為 $C(y) = yP_K^\alpha P_L^{1-\alpha}$ 。其中， P_K 及 P_L 分別為生產因素 K 及 L 之市場價格，而 y 為廠商之產量。請求取該廠商之生產函數。
3. 有一個有名的賭局 (St. Petersburg Paradox)，其規則如下：丟一個正常的 10 元銅板，若正面 (人頭像) 出現時，則贏。反之，若反面 (拾圓) 出現則算輸。此一賭局之彩金如下：第一局若贏了可得 1 元，第二局贏了則可得 2 元，第三局若贏了則可得 4 元，……第 n 局若贏了則可得 2^{n-1} 元。當參加者第一次投出反面 (拾圓) 時，此一賭局便宣告結束。請問：
 - (1) 此一賭局之預期值 (Expected Value) 為何？
 - (2) 您個人最多願意出多少錢來玩一次這項賭局？
 - (3) 請問(1)及(2)這兩項答案為什麼可能會不同？其背後之意義為何？
4. 假想一個社會僅有兩個人，其效用函數可分別用 $U^1(X_1, Y_1) = X_1^{\frac{1}{3}} Y_1^{\frac{2}{3}}$ ， $U^2(X_2, Y_2) = X_2^{\frac{2}{3}} Y_2^{\frac{1}{3}}$ 代表之。若全社會之總數量為 \bar{X}, \bar{Y} 。請問：此一社會之契約線 (Contract Curve) 應如何表示？
5. 競爭會使得廠商追求進步，以服務消費者。因此，只要沒有安全上之顧慮，想要開計程車的人便應該允許其擔任計程車司機，市場自己會平衡供需，因此，在追求社會福利最大的考量下，應採用自由放任的方式。計程車這項產業不需要以「執照」的方式加以管制。您贊成還是反對此項說法？請說明。

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I. Multiple choice questions (Choose one answer only for each question. 60% with 3% for each question):

1. When does it make sense for a corporation to diversify its operations ?
- (a) When there exists a shareholder who invests most of her wealth in the company and owns a large number of common stock of the company.
 - (b) When there is a trend for corporations to diversify.
 - (c) When the corporate diversification can reduce the risk of shareholders.
 - (d) When the company performs poorly on its major line of business.
 - (e) None of the above makes sense.

2. Which of the following should not be evaluated by using the internal-rate-of-return (IRR) rule ? Assume that your cost of capital is 15%.

- I. 標會 in which there are 12 members and bids (標價) are submitted each month. You will submit your bid in the third month and are calculating the rate of return on your investment.
- II. A project with the following cash flows: Cash outflow of \$100 now, cash inflow of \$150 at year 1, and cash inflow of \$200 at year 2.
- III. A project with cash flows as follows: Cash outflow of \$100 now, cash inflow of \$150 at year 1, and cash outflow of \$10 at year 2.

- (a) I
- (b) II
- (c) III
- (d) I and III
- (e) II and III

3. Financing decisions (decisions to raise money) differ from investment decisions (decisions to invest in projects) for which of the following reasons ?

- (a) We cannot use NPV to evaluate financing decisions.
- (b) The markets for real assets are usually not as efficient as the markets for financial assets.

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- (c) It is easier to find positive-NPV financing decisions than to find positive-NPV investment decisions.
(d) We cannot use option concept to evaluate investment decisions.
(e) None of the above.

4. Banks A and B are valued as follows:

	A	B
Number of common stock	500	200
Earnings per share	\$80	\$10
Stock price	\$100	\$20

Bank A now buys B by offering one (new) share of A for every 5 shares of B. That is, there are 540 shares of A outstanding after the merger. If there are no economic gains from the merger, what is the price-to-earnings (P/E) ratio of A's stock after the merger ?

- (a) 2.00
(b) 1.63
(c) 1.29
(d) 1.25
(e) 1.03

5. Look again at the above question. Is this merger beneficial to Bank A's shareholders ?

- (a) Yes, because of higher P/E ratio after the merger.
(b) No, because P/E ratio of A remains the same and so does A's stock price.
(c) Yes, because the size of Bank A will increase its size and so does market share of A in the banking business.
(d) No, because A's stock price does not change.
(e) Yes, because the merger can diversify the risk of A's shareholders.

6. You use your own money \$70,000 and borrow \$50,000 (at interest rate of 10%) to invest in ABC Co. Suppose that you expect to earn 24% on your own money, what do you expect to earn if you put up the entire \$120,000 from your own money ? Assume no tax.

- (a) 24%
(b) 10%
(c) 18.17%

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- (d) 15.67%
- (e) None of the above.

7. You are the financial manager of a company. Assume that the expected rate of return earned on the company's assets is 15%. Debt-to-equity (in market value) ratio is 1/2. Debt's return is 10%. A consultant suggests that you increase the borrowing to the level of debt-to-equity ratio of 2/3. Assume no tax effect. Is the consultant's advice good to the shareholders of the company ?

- (a) Yes, because the borrowing can increase expected rate of return on equity.
- (b) No, because the bankruptcy probability will increase.
- (c) No, because the financial risk will go up.
- (d) Does not matter to shareholders.
- (e) Cannot be determined.

8. In terms of real option, the cash flows from the corporate project play the same role as:

- (a) Dividends.
- (b) Exercise price.
- (c) Variance.
- (d) Stock price.
- (e) Underlying assets.

9. A project has the following cash flows and IRR:

<u>t=0</u>	<u>t=1</u>	<u>t=2</u>	<u>t=3</u>	<u>IRR</u>
+50	-21	-30	-20	18%

Your cost of capital is 16%. What should the company do ?

- (a) Accept the project.
- (b) Reject the project.
- (c) Cannot be determined.
- (d) Does not matter to shareholders.
- (e) None of the above.

10. One possible reason that shareholders prefer higher dividends is:

- (a) The market is efficient.
- (b) One bird in the hand is better than 2 birds in the bush.
- (c) MM Theory is correct.
- (d) Tax rate on cash dividend is higher than on capital gains.
- (e) Shareholders are afraid that managers may waste the excess cash on negative-NPV projects.

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11. Recent research by Fama and French calls into questions the CAPM because they find:
- (a). average security returns are negatively related to the firm P/E and M/B ratios.
 - (b). P/E and M/B are only two of several factors explaining average returns.
 - (c). a weak relationship between average returns and beta for 1941 to 1990 and no relationship from 1963 to 1990.
 - (d). a and c.
 - (e). b and c.
12. RKKL is considering buying a company that has no leverage but an asset of 7. The market risk premium is 6% and the risk-free rate is 2%. If they plan to use 75% debt, what will the required rate of return be?
- (a). 18.8%
 - (b). 6.2%
 - (c). 8%
 - (d). 14.6%
 - (e). not enough information to calculate.
13. If the securities market is efficient an investor need only to throw darts at the stock pages to pick securities and be just as well off.
- (a). This is true because there are no differences in risk and return.
 - (b). This is true because in an efficient stock market prices do not fluctuate
 - (c). This is false because professional portfolio managers prefer to generate commissions.
 - (d). This is false because investors may not hold a desirable risk-return combination in their portfolios.
 - (e). This is false because the markets are controlled by the institutional investors.
14. The increase in the stock price after a dividend increase is called the information content effect because:
- (a). the change in dividend was expected by shareholders.

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- (b). the dividend increase signalled investors to adjust the expectations of future earning upward.
- (c). the dividend change signalled investors to adjust the risk of the firm downward.
- (d). the dividend change signalled shareholders that the firm could now payout more as they enter the mature phase of their business.
- (e). none of the above.
15. An announcement of a new equity issue may cause the value of the stock to fall because:
- (a). management signals that the stock is overvalued and the market recognizes this and bids down the stock.
- (b). the investment bankers charge high fees.
- (c). the ex-issue day price drops by the after-tax amount.
- (d). the underwriter always exercises the green shoe option.
- (e). all of the above.
16. Which of the following would harm the position of a warrant holder?
- (a). a stock split of 3 for 1.
- (b). a large stock dividend of 20%.
- (c). a large cash dividend.
- (d). listing of the warrants on the NYSE.
- (e). none of the above would harm the warrant holders.
17. A forward contract carries an obligation to perform the terms of the contract. This is unlike a(n):
- (a). cash transaction where a service is carried out but like an option because it is a deferred choice.
- (b). option where a service is performed but like a cash transaction where it is completed today.
- (c). option because the buyer has the choice to exercise but similar to a cash transaction in that a service is performed.
- (d). hedging transaction because a commitment has been undertaken with the forward.
- (e). speculative transaction because an obligation must be fulfilled with the forward contract.
18. Concerning the Baumol model, which of the following is not correct

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(all other things equal)?

- (a). The optimum cash balance is higher the higher are interest rates.
- (b). The optimum cash balance is higher the higher are fixed order costs.
- (c). The optimum cash balance is higher the higher is the firm's total cash requirement.
- (d). Two of the above are not correct.
- (e). All of the above are correct.

19. The credit period offered is influenced by:

- (a). the size of the account to receive credit.
- (b). the collateral value of the goods sold.
- (c). the probability that the customer will not pay.
- (d). all of the above.
- (e). none of the above.

20. International corporations that borrow capital in the foreign country of investment face:

- a). exchange rate risk on the investment.
- b). exchange rate risk on the residual financing.
- c). cross rate risk on exports.
- d). exchange rate risk on the borrowing.
- e). swap rate risk on the repurchase.

II. Essay Questions (40% with 10% for each question):

Question 1: (1) Discuss the usefulness of option's application in the capital budgeting decisions. (2) In what circumstances is the option approach (in capital budgeting decisions) better than NPV, IRR, or discounted cash flow analysis? (3) Give an example of using option's principle for capital budgeting.

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Question 2: ABC Co. is all-equity financed. Book value of equity per share is \$10. Number of common shares is 100. Based on the assets, the company generates net cash flow of \$200 per year forever (i.e., perpetuity). CAPM indicates that the required rate of return on ABC's stock is 10%. (1) What is the market value of equity of ABC? (2) Suppose that ABC wants to issue new stock to raise money of \$1,000 to invest in expanding new markets. Based on this \$1000, ABC can generate additional \$150 net cash flow per year forever. (That is, after the issuance of new stock, ABC can generate net cash inflow of \$350 in total per year forever.) At what price should the new stock be sold? How many common shares should be issued in order to raise this \$1,000? Again, CAPM implies a required rate of return of 10% for these new common shares.

Question 3: TSB Bank has the following balance sheet:

Assets	Duration	Market Value
Overnight Money	0	10 M (million)
1-year T-bonds	0.5	20 M
Loans	1.8	50 M
Mortgages	8.25	<u>20 M</u>
		<u>100 M</u>

Liabilities	Duration	Market Value
Checking Account	0	60 M
Short-term CD's	0.3	10 M
Long-term CD's	2.25	25 M
Equity		<u>5 M</u>
		<u>100 M</u>

- (1) Please calculate the duration of TSB's assets and liabilities (no credit if no details showed)
- (2) What new asset duration will immunize the balance sheet if the duration of liabilities are 0.624

Question 4. 請解釋下列名詞

- (1) 連續競價交易制度
- (2) Specialist Market vs. Dealer Market

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一、以下資料分別代表台灣加權股價指數(簡稱指數)和台達化學公司(簡稱台達化)，資料收集自民國 84 年 1 月 5 日至民國 84 年 3 月 2 日。

年月日	收盤價 (元)	報酬率 (%)	開盤價 (元)	最高價 (元)	最低價 (元)	加權指數 (元)
84/1/5	50.95	-0.93	51.42	52.38	50.95	7051.49
84/1/6	50	-1.87	50.95	51.42	50	6919.31
84/1/7	50.47	0.95	50	50.95	50	6915.4
84/1/9	50	-0.94	50.95	50.95	50	6869.08
84/1/10	49.52	-0.95	50	50.47	48.57	6756.88
84/1/11	48.57	-1.92	49.52	49.52	48.57	6777.24
84/1/12	49.04	0.98	48.57	49.52	48.09	6609.5
84/1/13	49.52	0.97	49.52	50	49.04	6582.4
84/1/14	49.52	0	49.52	50	48.57	6511.3
84/1/16	49.04	-0.96	50	50	47.62	6536.65
84/1/17	49.04	0	48.57	49.04	48.09	6515.79
84/1/18	49.52	0.97	49.52	50.47	49.04	6623.52
84/1/19	49.04	-0.96	50	51.42	49.04	6598.02
84/1/20	48.09	-1.94	49.04	49.52	47.62	6372.01
84/1/21	49.04	1.98	47.62	49.52	46.47	6431.99
84/1/23	48.57	-0.97	49.52	50.95	48.09	6295.04
84/1/24	47.14	-2.94	47.14	48.57	46.76	6167.79
84/1/25	50	6.06	47.62	50	47.62	6299.62
84/1/26	50.95	1.9	50	50.95	49.52	6307.85
84/2/4	52.85	3.74	52.38	54.28	51.9	6328.38
84/2/6	53.81	1.8	53.33	54.28	51.9	6417.28
84/2/7	52.85	-1.77	54.28	54.28	52.38	6531.82
84/2/8	52.85	0	52.85	54.28	52.85	6526.74
84/2/9	54.76	3.6	54.28	55.23	53.81	6543.42
84/2/10	54.28	-0.87	55.71	56.66	54.28	6554.78
84/2/11	54.76	0.88	54.76	55.23	54.28	6565.24
84/2/13	53.81	-1.74	54.76	55.23	53.81	6498.21
84/2/14	55.23	2.65	54.28	56.19	53.81	6504.59
84/2/15	58.09	5.17	55.71	58.09	54.76	6576.25
84/2/16	58.09	0	58.57	59.52	58.09	6646.55
84/2/17	60	3.28	59.52	60.95	59.04	6646.25
84/2/18	60.47	0.79	60.95	60.95	60	6650.29
84/2/20	58.09	-3.94	60.47	60.95	58.09	6612.97
84/2/21	60	3.28	58.57	60	58.57	6633.03
84/2/22	59.04	-1.59	60	60	58.57	6603.88
84/2/23	59.04	0	59.04	60	58.57	6552.95
84/2/24	59.04	0	59.52	60	58.57	6596.07
84/2/25	59.04	0	59.04	60	59.04	6591.36
84/2/27	55.23	-6.45	56.66	58.09	55.23	6388.57
84/2/28	55.23	0	55.23	56.19	54.28	6509.33
84/3/1	51.42	-6.9	54.76	54.76	51.42	6337.83
84/3/2	52.38	1.85	51.9	52.85	51.9	6450.39

請回答下列各問題，(每一小題各佔 12.5 分，共 50 分)

1. 試問台達化股價報酬率是否具有常態性。
2. 請利用四分位法解釋台達化股價分佈的可能股價。
3. 試問台達化股價和指數之相關性如何？該股報酬率和指數變動率之相關性又如何？
4. 請利用台達化股價漲跌解釋股價變動之隨機性。

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二、表 A. 是調查 60 戶家庭每週所得水準(X)與消費支出(Y)的母體資料，表 B. 則是根據表 A. 隨機抽出的一組 (10 戶) 樣本資料，我們目的在已知某種所得水準下，去預測消費水準。

		表 A.										表 B.	
所得 X	消費 Y	80	100	120	140	160	180	200	220	240	260	Y	X
		55	65	79	80	102	110	120	135	137	150	70	80
60	70	84	93	107	115	136	137	145	152	65	100		
65	74	90	95	110	120	140	140	155	175	90	120		
70	80	94	103	116	130	144	152	165	178	95	140		
75	85	98	108	118	135	145	157	175	180	110	160		
...	88	...	113	125	140	...	160	189	185	115	180		
...	...	...	115	...	...	...	162	...	191	120	200
...	...	...	...	...	...	...	...	...	...	140	220
合計		325	462	445	707	678	750	685	1,043	966	1,211	155	240
												150	260

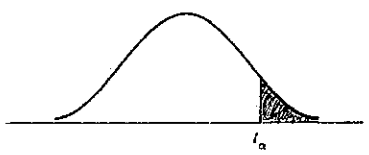
- (15 分) 請根據表 A. 資料，求出母體迴歸函數(Population Regression Function, PRF)。
 - (5 分) 如果根據表 B. 欲使所建立的樣本迴歸函數(Sample Regression Function, SRF)「儘可能地接近」PRF，就您所知，有何方法可以作到？其基本假設為何？(直接說出此一方法名稱及其假設之文字內容即可，不必列式)
 - (15 分) 如果我們找出能「儘可能地接近」PRF 的 SRF 為：

$$\hat{Y}_i = 24.4545 + 0.5091X_i$$
 並且得知：
$$\sum_{i=1}^{10} (Y_i - \hat{Y}_i)^2 = 337.2728$$

$$\sum_{i=1}^{10} X_i^2 = 322,000, \quad \sum_{i=1}^{10} (X_i - \bar{X})^2 = 33,000$$
 請檢定「所得水準對消費支出是否有正面之影響？」
 - (5 分) 該 60 戶家庭 (母體) 的邊際消費傾向之區間估計值是多少？
 - 若已知所得水準為 \$280，請分別預測：(1) 60 戶家庭 (母體) 平均消費支出的預測區間。(2) 某一特定家庭的消費支出預測區間。(各 5 分，共 10 分)
- **以上 3.~5. 各小題所用之顯著水準皆為 5%，統計量所需機率分配表，請自附表自行查出。

Appendix

TABLE Critical Values of *t*



d.f.	$t_{.100}$	$t_{.050}$	$t_{.025}$	$t_{.010}$	$t_{.005}$	d.f.
1	3.078	6.314	12.706	31.821	63.657	1
2	1.886	2.920	4.303	6.965	9.925	2
3	1.638	2.353	3.182	4.541	5.841	3
4	1.533	2.132	2.776	3.747	4.604	4
5	1.476	2.015	2.571	3.365	4.032	5
6	1.440	1.943	2.447	3.143	3.707	6
7	1.415	1.895	2.365	2.998	3.499	7
8	1.397	1.860	2.306	2.896	3.355	8
9	1.383	1.833	2.262	2.821	3.250	9
10	1.372	1.812	2.228	2.764	3.169	10
11	1.363	1.796	2.201	2.718	3.106	11
12	1.356	1.782	2.179	2.681	3.055	12
13	1.350	1.771	2.160	2.650	3.012	13
14	1.345	1.761	2.145	2.624	2.977	14
15	1.341	1.753	2.131	2.602	2.947	15
16	1.337	1.746	2.120	2.583	2.921	16
17	1.333	1.740	2.110	2.567	2.898	17
18	1.330	1.734	2.101	2.552	2.878	18
19	1.328	1.729	2.093	2.539	2.861	19
20	1.325	1.725	2.086	2.528	2.845	20
21	1.323	1.721	2.080	2.518	2.831	21
22	1.321	1.717	2.074	2.508	2.819	22
23	1.319	1.714	2.069	2.500	2.807	23
24	1.318	1.711	2.064	2.492	2.797	24
25	1.316	1.708	2.060	2.485	2.787	25
26	1.315	1.706	2.056	2.479	2.779	26
27	1.314	1.703	2.052	2.473	2.771	27
28	1.313	1.701	2.048	2.467	2.763	28
29	1.311	1.699	2.045	2.462	2.756	29
inf.	1.282	1.645	1.960	2.326	2.576	inf.

國立中山大學八十八學年度碩博士班招生考試試題

科目：經濟學概論 (財務管理學系碩士班)
乙組

共 4 頁 第 1 頁

單選題，計 25 題，每題 4 分，答錯倒扣 1 分：

- 1 If a firm raises the price of its product, its total revenue will
 - a. always increase
 - b. increase only if demand is price inelastic
 - c. increase only if demand is price elastic
 - d. remain constant, regardless of price elasticity of demand
 - e. never increase

- 2 The utility-maximizing combination of goods occurs when
 - a. the marginal utility of each good is equal
 - b. the total utility of each good is equal
 - c. the quantity consumed of each good is equal
 - d. the amount spent on each good is equal
 - e. the marginal utility per dollar spent on each good is equal

- 3 As long as the firm is not operating inefficiently, which cost always increases with increases in output?
 - a. marginal cost
 - b. average fixed cost
 - c. total fixed cost
 - d. average variable cost
 - e. total variable cost

- 4 A perfectly competitive firm will produce at an economic loss (negative profit) in the short run rather than discontinue production if there is a rate of output at which price
 - a. exceeds average variable cost
 - b. exceeds average fixed cost
 - c. exceeds average total cost
 - d. exceeds marginal revenue
 - e. equals marginal cost

- 5 Which of the following conditions would be *least* likely to lead to the market structure of monopoly?
 - a. the firm has patent protection for certain basic production processes
 - b. the firm has control over the entire supply of a basic input required to produce the product
 - c. firms can freely enter and leave the industry in the long run
 - d. significant economies of scale exist, leading to declining average costs throughout the relevant range of production
 - e. a government agency awards an exclusive market franchise to a firm

- 6 The demand curve facing a monopolistically competitive firm is typically
 - a. perfectly elastic
 - b. more elastic than the demand curves facing either monopolists or perfect competitors
 - c. more elastic than the demand curves facing monopolists, but less elastic than the demand curves facing perfect competitors
 - d. less elastic than the demand curves facing either monopolists or perfect competitors
 - e. perfectly inelastic

國立中山大學八十八學年度碩博士班招生考試試題

科目：經濟學概論

共 4 頁 第 2 頁

- 7 As the price paid to a specific resource increases
- the supply of this resource will increase in the resource market
 - the supply of the resource will decrease in the resource market
 - resources will shift from other resource markets to this one
 - resources will shift from this resource market to others
 - resources usage will be unaffected
- 8 As a consumer's market wage increases, the opportunity cost of her time spent in other activities
- increases
 - remains constant
 - decreases
 - bends backward on itself
 - decreases only for small increases in wages rate
- 9 Firms will increase their investment in capital
- either c or d
 - either d or e
 - as long as the marginal rate of return is less than the market rate of interest
 - until marginal rate of return equals the market rate of interest
 - as long as the marginal rate of return exceeds the market rate of interest
- 10 Which of the following would lead a utility maximizing consumer to engage in a more extensive search for information?
- both c and e
 - an increase in the marginal cost of information
 - improved technology (e.g., Internet search programs)
 - a reduction in the dispersion of prices
 - an increase in the consumer's wage rate
- 11 Which of the following would *not* be included in the *expenditures* method of calculating GDP?
- consumption (personal consumption expenditures)
 - investment (gross private domestic investment)
 - government purchases (government consumption and gross investment)
 - compensation of employees (wages and salaries)
 - net exports (exports minus imports of goods and services)
- 12 Which of the following would best represent aggregate expenditures in an open economy (i.e., international trade takes place) and an active government?
- $C + G + (X - M)$
 - $C + I + (X - M)$
 - $C + I + (X + M)$
 - $C + I + G + (X - M)$
 - $C + I + G + (X + M)$
- 13 If an additional \$100 is spent on investment and in the next round of spending, we have an increase of \$75, and assuming each subsequent round of spending follows the same pattern, the multiplier would be
- 10
 - 8
 - 5
 - 3
 - 4

國立中山大學八十八學年度碩博士班招生考試試題

科目：經濟學概論

共 4 頁 第 3 頁

- 14 In the short run, if the economy has less than full employment and potential output and the aggregate supply curve shifts outward, then
- price levels decrease and output increases
 - price levels increase and output decreases
 - price levels decrease and output decreases
 - price levels increase and output increases
 - price levels and output levels remain unchanged
- 15 An improvement in the quality of capital would
- rotate the *per-worker production function* upwards
 - make the *per-worker production function* flatter in slope
 - shift the *per-worker production function* downward
 - rotate the *per-worker production function* downward
 - have no effect on the *per-worker production function*
- 16 What effect would an increase in resource costs have on aggregate demand and aggregate supply?
- aggregate demand unchanged and aggregate supply shifts outward
 - aggregate demand unchanged and aggregate supply shifts inward
 - aggregate demand shifts outward and no change in aggregate supply
 - aggregate demand shifts inward and no change in aggregate supply
 - aggregate demand and aggregate supply shift outward
- 17 If taxes change, consumption spending at each level of GDP
- rises by the decrease in net taxes times the average propensity to consume
 - falls by the decrease in net taxes times the marginal propensity to consume
 - rises by the increase in net taxes times the marginal propensity to consume
 - rises by the decrease in net taxes times the marginal propensity to consume
 - will fall or rise depending upon how much net taxes decrease
- 18 An example of a capital expenditure in the present for which shifting the cost to future generations through deficit financing might be justified because those future generations will also share in its benefits is
- Social Security
 - interest on the debt
 - welfare
 - a highway
 - the school lunch program
- 19 The largest component of M_1 is
- time deposits
 - coins and currency combined
 - checkable deposits
 - savings accounts
 - money market accounts
- 20 An increase in the money supply is most likely to increase planned investment by causing
- a decrease in the prices of capital equipment
 - a decrease in the rate of interest
 - an increase in the prices of consumer goods
 - a decrease in the excess reserves of banks
 - an increase in the value of the dollar

國立中山大學八十八學年度碩博士班招生考試試題

科目：經濟學概論

共 4 頁 第 4 頁

- 5
- 21 Which of the following statements most accurately reflects the views of those who advocate an active approach to governmental economic policy?
- a. the private sector is relatively stable and will correct itself if blown off course
 - b. the private sector is relatively unstable but governmental policy can't do anything about economic problems when they arise
 - c. sometimes the economy is stable and sometimes not, but either way the best policy for government is to do nothing
 - d. the private sector is relatively unstable and when there are economic problems the government should intervene to get the economy back on track
 - e. careful use of governmental economic policy can reshape the economy so as to create permanent economic stability and constant full employment
- 10
- 22 Which of these is likely to increase the most in a severe recession?
- a. frictional unemployment
 - b. seasonal unemployment
 - c. structural unemployment
 - d. cyclical unemployment
 - e. employment
- 15
- 23 A Lorenz curve which moves closer to a 45 degree straight line from the origin indicates
- a. both c and d
 - b. the rich get richer and the poor get poorer
 - c. increasing concentrations of poverty
 - d. a more unequal distribution of income
 - e. a more equal distribution of income
- 20
- 24 Economists tend to favor export promotion over import substitution for all of the following reasons *except* that export promotion
- a. increases the gains from specialization and comparative advantage
 - b. offers more protection from foreign competition to domestic producers
 - c. emphasizes trade expansion rather than trade restriction
 - d. creates stronger incentives for producers to operate efficiently
 - e. requires less government intervention in the market
- 25
- 25 Government policies should be used to
- a. promote the consumption of goods that produce positive externalities
 - b. promote the consumption of goods that produce negative externalities
 - c. ensure that private property rights are assigned to all open-access resources
 - d. outlaw renewable resources
 - e. outlaw nonappropriable resources
- 30

國立中山大學八十八學年度碩博士班招生考試試題

科目：財務管理概論 財管系 乙組

共 / 頁 第 / 頁

請回答下列問題，每題廿分

- 一. 多角化(Diversification) 之意義何在? 進行多角化應注意那些原則? 企業進行多角化有那些做法? 有那些風險?
- 二. 企業如何知道其營運資金不適? 改善之主要方向如何? 應如何改善?
- 三. 可轉換公司債之市場特性如何? 發行人及投資人對此債券各有何期望?
- 四. 提高財務槓桿何以能提高報酬? 此外, 它還有什麼其它影響?
- 五. 環球公司添增罐頭部後, 發現它屬呈虧損如下表, 試分析應撤除它嗎?

	<u>青蔬部</u>	<u>糖果部</u>	<u>罐頭部</u>	<u>合計</u>
營業收入	\$10,000	\$ 25,000	\$15,000	\$50,000
減 變動成本	<u>6,000</u>	<u>12,000</u>	<u>8,000</u>	<u>26,000</u>
邊際貢獻	\$ 4,000	\$ 13,000	\$ 7,000	\$24,000
減固定成本	<u>3,000</u>	<u>6,500</u>	<u>8,000</u>	<u>17,500</u>
利 潤	<u>\$ 1,000</u>	<u>\$ 6,500</u>	<u>\$ (1,000)</u>	<u>\$ 6,500</u>

國立中山大學八十八學年度碩博士班招生考試試題
科目 商用統計學 (財管所乙組)

共 2 頁 第 1 頁

(15分) 一、Moody 是一家大型且知名的財務服務公司，Moody 依發行債券之公司的品質好壞予以評等。評等愈高，表示債券之利息與本金準時支付的可靠度愈高，下表列示三種債券最近六個月之殖利率（即債券報酬率），Aaa 的評等最佳，Aa 的評等次之，A 的評等為第三。

月份	評 等		
	Aaa	Aa	A
一月份	10.21 %	10.63	11.04 %
二月份	11.10 %	11.98	12.38 %
三月份	11.55 %	12.60	13.25 %
四月份	12.05 %	12.50	12.84 %
五月份	10.98 %	11.21	12.05 %
六月份	11.70 %	12.61	12.60 %

請計算每一種評等債券的平均殖利率？比較這三種債券殖利率之高低，並評論 Moody 的評等是否具有參考性？

(5分) 二、富邦銀行對不同條件的貸款者收取不同的貸款利率，下表記錄富邦銀行貸款組合中的不同貸款利率與貸款金額：

貸款利率	貸款金額
6.5 %	5.0 億
7.0 %	8.0 億
8.75 %	0.5 億
9.75 %	10.7 億

請計算富邦銀行在其貸款組合中所賺取的平均利率為多少？

(10分) 三、中鋼公司股票的平均報酬率與標準差分別為 $\mu_1=10\%$ ， $\sigma_1=16\%$ ，台積電公司股票的平均報酬率與標準差分別為 $\mu_2=20\%$ ， $\sigma_2=26\%$ ，若中鋼與台積電股票報酬率的相關係數 $\rho_{12}=1$ ，則 50% 投資於中鋼且另 50% 投資於台積電所形成的投資組合的平均報酬率與標準差各為多少？

(10分) 四、台灣菜藍族投資股票因而賺錢的平均機率為 25%，台證證券高雄分公司的菜藍族投資者有 500 人，請問這 500 人投資者當中有 140 人以上的投資者賺錢的機率為多少？
 $Z_{0.940}=1.5488$ ， $Z_{0.939}=1.5464$

國立中山大學八十八學年度碩博士班招生考試試題

科目：商用統計學(對等所乙組)

共 2 頁 第 2 頁

(15分) 五、下表顯示 12 家公司的負債比率：

公司	負債比率	公司	負債比率
中鋼	32.4 %	聯電	20.2 %
統一	37.9 %	安鋒	59.5 %
長興	34.5 %	台紙	11.3 %
台泥	29.3 %	東元	33.5 %
奇美	7.90 %	中工	26.7 %
長谷	33.2 %	遠紡	35.9 %

1. 請求算負債比率的點估計為多少？
2. 設負債比率的標準差已知且等於 10，請求算負債比率的 95% 信賴區間？
3. 若負債比率的標準差未知，請問負債比率的 95% 信賴區間為多少？

(15分) 六、大統公司隨機抽取 60 名員工調查其工作滿意度，所得結果如下表：

非常不滿意	不滿意	滿意	很滿意
17	20	18	5

請檢定「員工在四種滿意分類的機會是一樣」之假說是否成立 ($\alpha=5%$ ，且

$$X_{3,5\%}^2 = 7.815, X_{4,5\%}^2 = 9.488)$$

(15分) 七、利用最小平方法求得下列 X 與 Y 的迴歸式：

$$\hat{Y}_i = -5 + 10X_i$$

X_i 與殘差 e_i 的值如下：

X	0	5	10	15	20
e_i	0	-5	5	4	?

1. 請求算第五個殘差的值為多少？
2. 五個 Y_i 的值分別為多少？
3. 計算 X 與 Y 的相關係數？

(15分) 八、為了估計 $Y = \beta_0 + \beta_1 X + \beta_2 X^2$ 之模式，電腦跑出下列的結果。

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			
R SQUARE					
PARAMETER	ESTIMATE	T FOR H0: 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	

1. 請利用上述報表寫出估計的實際模式結果。
2. R^2 為多少？
3. Y 的變異有多少百分比可由此模式加以解釋？