

壹、 Multiple Choice Questions 50% (question 1-6, each 3%, question 7-14, each 4%)

1. NCU Company had sales revenue and operating expenses of \$6,000,000 and \$5,200,000, respectively, for the year just ended. If invested capital amounted to \$5,000,000, the firm's ROI was:
A. 16%. B. 83.33%. C. 86.67%. D. 625%.
2. Participative budgeting is an approach to budgeting that
A. is top-down in nature. B. discourages budget slack. C. allows top management to set the budget.
D. is more likely to motivate people to work towards the organization's goals than a top-down approach.
3. Are direct labor (denoted as DL below), variable manufacturing overhead (denoted as VOH below) and fixed administrative expenses (denoted as FAE below), respectively, treated differently under absorption costing and variable costing?
A. VOH: yes, DL and FAE: no. B. VOH: no, DL and FAE: yes. C. all of three: yes. D. all of three: no.
4. The accounting firm of NCU is examining its client base to determine how profitable its regular clients are. Its analysis indicates that Delux, Inc. paid \$72,000 in fees last year, but cost the firm \$82,000 (\$63,000 in billable labor, supplies, and copying, and \$19,000 in allocated common fixed costs). If NCU dropped Delux, Inc. as a client, how would profit be affected?
A. \$0. B. Increase \$10,000. C. Decrease \$9,000. D. Decrease \$72,000.
5. When a traditional, volume-based costing system is used, which of the following products is most likely to suffer from cost distortion?
A. A high-volume, medium-complexity product. B. A low-volume, low-complexity product.
C. A low-volume, medium-complexity product. D. A low-volume, high-complexity product.
6. When a company switches from a traditional system to a just-in-time production and inventory system, what often happens to the quality of raw material purchased (denoted as Q below) and the number of vendors that supply the firm (denoted as N below)?
A. Q and N both increase. B. Q and N both decrease. C. Q increases, N decreases. D. N increases, Q decreases.
7. Assume that a capital project is being analyzed by a discounted-cash-flow approach, and an employee first assumes no income taxes (denoted as NT below) and then later assumes a 25% income tax rate (denoted as T below). How would depreciation expense be incorporated in the analysis under these two assumptions?
A. NT: considered, T: ignored. B. NT: ignored, T: considered. C. both: considered.
D. both: ignored. E. the correct answer depends on the depreciation method that is used.
8. The accounting records of NCU Company revealed the following costs, among others: raw material used \$200,000, factory insurance \$40,000, customer entertainment \$10,000, indirect labor \$45,000, depreciation on salesperson's cars \$20,000, production equipment rental costs \$72,000. Costs that would be considered in the calculation of manufacturing overhead total:
A. \$157,000. B. \$177,000. C. \$187,000. D. \$387,000. E. some other amount.
9. NCU sells a single product at \$20 per unit. The firm's most recent income statement revealed unit sales of 4,000, variable costs of \$400,000, and fixed costs of \$500,000. Management believes that a \$3 drop in selling price (denoted as change I below) will boost unit sales volume by 15% (denoted as change II below). Which of the following correctly depicts how these two changes will affect the company's break-even point?
A. both changes: increase. B. both changes: decrease. C. change I: increase, change II: decrease.
D. change I: decrease, change II: increase. E. change I: increase, change II: no effect.
10. Which of the following statements is (are) true regarding a company that has implemented flexible manufacturing systems and activity-based costing?
I. Costs formerly viewed as fixed under traditional-costing systems may now be considered variable with respect to changes in cost drivers such as number of setups, number of material moves, and so forth.
II. The company has erred, as these two practices used in conjunction with one another will severely limit the firm's ability to analyze costs over the relevant range.
III. As compared with the results obtained under a traditional-costing system, the concept of break-even analysis loses meaning.
A. I only. B. II only. C. III only. D. II and III. E. I, II and III.
11. NCU Company has computed the following unit costs for the year just ended: Direct material used \$10, Direct labor \$20, Variable manufacturing overhead \$15, Fixed manufacturing overhead \$25, Variable selling and administration cost \$8, Fixed selling and administration cost \$18. Under variable costing, each unit of the company's inventory would be carried at:
A. \$23. B. \$45. C. \$53. D. \$70. E. 78.
12. NCU Company, which applies overhead to production on the basis of machine hours, reported the following data for the period just ended: Actual units produced: 10,000, Actual variable overhead incurred: \$98,000, Actual machine hours worked: 21,000, Standard variable overhead cost per machine hour: \$5. If NCU estimates 2 hours to manufacture a completed unit, the company's variable-overhead spending variance is:
A. \$5,000 favorable. B. \$5,000 unfavorable. C. \$7,000 favorable. D. \$7,000 unfavorable.
E. some other amount not listed above.

國立中央大學101學年度碩士班考試入學試題卷

所別：會計研究所碩士班 不分組(一般生) 科目：管理會計 共 2 頁 第 2 頁

本科考試可使用計算器，廠牌、功能不拘

*請在試卷答案卷(卡)內作答

13. The East Division of NCU Enterprises has a negative residual income of \$150,000. East's management is contemplating an investment opportunity that will reduce this negative amount to \$100,000. The investment:
- should be pursued because it is attractive from both the divisional and corporate perspectives.
 - should not be pursued because it is unattractive from both the divisional and corporate perspectives.
 - should be pursued because it is attractive from the corporate perspective although not from the divisional perspective.
 - should be pursued because it is attractive from the divisional perspective although not from the corporate perspective.
 - should not be pursued because it is unattractive from the divisional perspective although it is attractive from the corporate perspective.
14. Consolidated NCU is considering a \$1,000,000 investment in new equipment that is anticipated to produce the following data over a five-year life:

Year	Cash Inflows	Cash Outflows	Depreciation
1	\$600,000	\$250,000	\$200,000
2	\$550,000	\$350,000	\$200,000
3	\$550,000	\$200,000	\$200,000
4	\$600,000	\$200,000	\$200,000
5	\$600,000	\$250,000	\$200,000

Ignoring income taxes and assuming that cash flows occur evenly throughout a year, the equipment's approximate payback period is:

- 1 year, 9 months.
- 2 years, 10 month.
- 3 years, 3 months.
- over 5 years.
- some other period of time not noted above.

貳、管理會計 (50%) ※作答說明：題號請標明清楚。計算題須列示過程，否則不予計分。

1、大明公司正考慮生產一款新型遊戲機。此遊戲機預計每年出售 50,000 台。目前，除螢幕外，公司的產能足以生產 50,000 台遊戲機所需的零件。每台遊戲機搭配一個彩色螢幕，大明公司可選擇自行製造或向外購買。由於公司各工廠的產能均已滿載，如果自行生產螢幕，大明公司必須租下額外設備與僱用工人來生產螢幕；設備每年租金為 \$90,000，工人薪資為每年 \$52,000。大明公司如果選擇向外部供應商購買，每個螢幕價格為 \$18。大明公司生產 50,000 個螢幕的預估成本：直接原料為 \$235,000、直接人工為 \$300,000、已分攤製造費用為 \$360,000。大明公司的製造費用係以直接人工成本為分攤基礎，已分攤製造費用中，75% 為固定成本。

試問：大明公司應選擇自製或外購螢幕？(10%)

2、承第 1 題，如果大明公司目前產品（包含生產 50,000 台遊戲機所需的零件）僅使用正常產能的 90%，剩餘產能還可以製造 20,000 個螢幕。大明公司如自行生產 50,000 個螢幕而不增加設備及人工，將使公司另一項產品（翻譯機）減產 2,000 台，翻譯機每台的邊際貢獻為 \$95。假設大明公司當年製造產品都在當年度售出。管理當局目前有三個選擇方案：

- # 方案 1：螢幕自製 20,000 個，外購 30,000 個。
- # 方案 2：所需螢幕全部外購。
- # 方案 3：所需螢幕全部自製。

試問：大明公司應選擇哪一個方案？(15%)

3、山仁公司在 X1 年初設立 A 部門，除營運使用的流動資產 \$600,000 外，另有機器設備 \$1,200,000。假設該設備耐用年限為五年，無殘值。假設在設備使用期間，A 部門均維持一定的流動資產，而且扣除折舊費用前的淨利均為 \$520,000。公司設定的最低要求報酬率為 15%。

- 試問：(1) 倘若機器設備按直線法提列折舊，按照平均資產淨額計算設備在 X5 年底的投資報酬率？(5%)
- (2) 倘若設備按直線法提列折舊，按照平均資產淨額計算設備在第 2 個使用年度的剩餘利潤？(5%)
- (3) 若設備按年數合計法提列折舊，按照平均資產淨額計算設備在第 3 個使用年度的投資報酬率？(5%)

4、The Hope Company products a gasoline additive, Gas Gain, that increases engine efficiency and improves gasoline mileage. The actual and budgeted quantities and the budgeted prices in August 2011 of the two petroleum products required to produce 50,000 gallons of Gas Gain are as follows:

Chemical	Actual Quantity (gallons)	Budgeted Quantity (gallons)	Budgeted Price (per gallon)
Wenz	16,200	20,800	\$0.5
Botx	37,800	31,200	\$0.3

注意：背面有試題

Required

Calculate the total direct materials mix and yield variances for August 2011. (10%)