

Study Guide for Chapters 5, 6, & 7 – This is a suggested study guide. It is not intended to be all inclusive. You should also study the course material covered. Remember – anything in the book or covered in class is fair game!

- Understand the relationships between contribution margin and fixed and variable costs if volume increases or decreases.
- Be able to calculate break-even or target profits in units or in dollars.
- Be able to calculate operating leverage and margin of safety (both in dollars and as a percentage).
- If given an operating leverage, be able to calculate increase in operating income if given a percentage increase in sales.
- Be able to calculate the change in operating income if we increase fixed or variable costs to increase unit sales, or if we increase or decrease price.
- Know how to calculate the break-even and target profits for a multi-product company.
- Know the difference between gross profit and contribution margin. Understand how to apply traceable fixed expenses and common fixed expenses when calculating segment margins. Know which costs would be considered traceable vs fixed for a particular situation.
- If given sales, contribution margin %, and traceable fixed costs for some segments, be able to calculate missing data. (Practice problems #21, 22, 23)
- Be able to calculate contribution margin and operating income if given divisional data. (practice problem #19 and 20)
- Know the differences between traditional product costing and ABC costing.
- Understand the differences between a duration driver and a transaction driver.
- Know the 5 types of cost-pools and be able to identify what costs go in each.
- Be able to calculate first and second stage allocations.
- Review each of the class exercises – make sure you understand the concepts discussed.

Caution: *The following questions were extracted from past exams. They are intended for you to become familiar with the types and formats of questions that you will be asked on the upcoming exam. Studying ONLY these sample questions will not adequately prepare you for the exam. You should also review notes, homework problems, and other materials that your instructor provided you.*

QUESTIONS 1 THROUGH 4 ARE BASED ON THE FOLLOWING INFORMATION:

Volunteers Company had the following income statement for the most recent year:

	Total	Per unit
Sales (15,000 units)	\$150,000	\$10
Less: Variable expenses	<u>90,000</u>	<u>6</u>
Contribution margin	60,000	<u>\$ 4</u>
Less: Fixed expenses	<u>50,000</u>	
Net income	<u>\$ 10,000</u>	

- What will be the operating income, if sales volume increases by 15%?
 - \$19,000
 - \$11,500
 - \$20,450
 - \$18,350
- Refer to the original data, what will be the operating income (loss), if the selling price decreases by \$3 and the sales volume increases by 50%?
 - \$22,500
 - (\$27,500)
 - \$29,750
 - (\$32,850)
- Refer to the original data, volunteers' breakeven point in units is
 - 18,000
 - 4,400
 - 11,000
 - 12,500
- Refer to the original data, how many units of the product must be sold for Volunteers to realize an operating income of \$30,000?
 - 19,000
 - 20,000
 - 22,000
 - 23,000
- The Bulldogs Company has the following sales projection for November:

Projected sales for the month.....	\$1,000,000
Project sales at breakeven point.....	\$800,000

What is Bulldogs' margin of safety, expressed as a percentage, for November?

- 30%
- 80%
- 20%
- 100%

QUESTIONS 6 AND 7 ARE BASED ON THE FOLLOWING INFORMATION

The Tigers Company sells two products with the following data:

	Product A	Product B	Total
Sales	\$100,000	\$100,000	\$200,000
Variable costs.....	<u>70,000</u>	<u>55,000</u>	<u>125,000</u>
Contribution margin.....	<u>\$ 30,000</u>	<u>\$ 45,000</u>	<u>\$ 75,000</u>
Contribution margin ratio	30%	45%	37.5%

The company's fixed expenses total \$45,000 per month.

6. Based on the current sales mix, the breakeven point for the company as a whole is
 - A. \$200,000
 - B. \$175,000
 - C. \$120,000
 - D. \$150,000

7. Based on the current sales mix, if total sales increase by \$30,000 per month, by how much will the overall company's operating income increase?
 - A. \$11,250
 - B. \$60,000
 - C. \$12,500
 - D. \$90,000

8. For a company that has an operating leverage that is equal to 5, if sales increase 20% operating income will
 - A. increase 20%
 - B. increase 100%
 - C. decrease 20%
 - D. decrease 100%

9. If a company decreases the variable expense per unit while other costs and selling price remain unchanged
 - A. contribution margin per unit will decrease.
 - B. contribution margin per unit will increase.
 - C. breakeven point will increase.
 - D. net income will decrease.

10. Which of the following formulas is used to calculate the break-even point in terms of sales dollars?
 - A. Fixed expenses/Unit contribution margin
 - B. Variable expenses/Contribution margin ratio
 - C. Fixed expenses/Contribution margin ratio
 - D. Net operating income/Unit contribution margin

QUESTIONS 11 AND 12 ARE BASED ON THE FOLLOWING INFORMATION:

Gamecocks Store, a retailer, has the following data relating to the month of October:

Sales price	\$500,000
Cost of goods sold (all variable)	200,000
Variable selling expense	50,000
Fixed selling and administrative expense	100,000

11. Gamecocks' gross profit for the month is
- A. \$250,000
 - B. \$150,000
 - C. \$300,000
 - D. \$180,000
12. Gamecocks' contribution margin for the month is
- A. \$250,000.
 - B. \$150,000
 - C. \$300,000.
 - D. \$180,000.

QUESTIONS 13 AND 14 ARE BASED ON THE FOLLOWING INFORMATION:

Gamecocks Store, a retailer, has the following data relating to the month of October:

Sales	\$500,000	100%
Total variable costs	<u>300,000</u>	<u>60%</u>
Contribution margin.....	200,000	<u>40%</u>
Fixed selling and administrative expense	<u>100,000</u>	
Operating income.....	100,000	

13. What is the amount of sales that Gamecocks will have to achieve at the break-even point?
- A. \$500,000
 - B. \$300,000
 - C. \$250,000
 - D. \$180,000
14. What is the amount of sales that Gamecocks will have to achieve to realize a target net income of \$90,000?
- A. \$475,000.
 - B. \$725,000
 - C. \$300,000.
 - D. \$190,000.

15. Drake Company's contribution format income statement for the most recent year appears below:

Sales (26,000 units).....	\$650,000
Variable expenses	<u>442,000</u>
Contribution margin.....	208,000
Fixed expenses	<u>234,000</u>
Net operating loss.....	<u>\$(26,000)</u>

The sales manager is convinced that a \$60,000 expenditure on advertising will increase unit sales by 50% without any other increase in fixed expenses. If the sales manager is correct, the company's net operating income would increase by:

- A. \$44,000
- B. \$34,000
- C. \$30,000
- D. \$49,000

QUESTIONS 16 AND 17 ARE BASED ON THE FOLLOWING DATA:

Lagasca Corporation's contribution format income statement for December appears below:

Sales.....	\$342,000
Variable expenses	<u>190,000</u>
Contribution margin.....	152,000
Fixed expenses	<u>119,600</u>
Net operating income.....	<u>\$ 32,400</u>

16. The degree of operating leverage for Lagasca is closest to:
- A. 10.56
 - B. 0.21
 - C. 4.69
 - D. 0.09
17. The margin of safety in dollars for Lagasca is closest to:
- A. \$126,720
 - B. \$72,900
 - C. \$32,400
 - D. \$190,000
18. An example of a common cost that should not be assigned to a particular product on a segmented income statement is:
- A. the product's advertising costs.
 - B. the salary of the corporation president.
 - C. direct materials costs.
 - D. the product manager's salary.

QUESTIONS 19 AND 20 ARE BASED ON THE FOLLOWING DATA:

Tennison Corporation has two major business segments—Consumer and Commercial. Data for the segment and for the company for May appear below:

Sales revenues, Consumer.....	\$970,000
Sales revenues, Commercial.....	\$580,000
Variable expenses, Consumer.....	\$514,000
Variable expenses, Commercial.....	\$267,000
Traceable fixed expenses, Consumer.....	\$184,000
Traceable fixed expenses, Commercial.....	\$110,000

In addition, common fixed expenses totaled \$371,000 and were allocated by Tennison’s accountant as follows: \$186,000 to the Consumer business segment and \$185,000 to the Commercial business segment.

19. A properly constructed segmented income statement in a contribution format would show that the segment margin of the Consumer business segment is:
 - A. \$272,000
 - B. \$270,000
 - C. \$86,000
 - D. \$514,000

20. A properly constructed segmented income statement in a contribution format would show that the net operating income of the company as a whole is:
 - A. \$769,000
 - B. \$104,000
 - C. \$475,000
 - D. -\$267,000

QUESTIONS 21 THROUGH 23 ARE BASED ON THE FOLLOWING DATA:

Falquez Company sells three products: R, S, and T. Data for activity of Falquez Company during July are as follows:

		Products		
	Total	R	S	T
Sales	\$800,000	\$150,000	?	\$200,000
Contribution margin ratio.....	32%	?	25%	40%
Traceable fixed expenses	\$120,000	\$25,000	\$60,000	?

Common fixed expenses for July amounted to \$90,000.

21. Net operating income for the company was:
 - A. \$166,000
 - B. \$256,000
 - C. \$334,000
 - D. \$46,000

22. The contribution margin for Product R was:
- A. \$48,750
 - B. \$63,500
 - C. \$51,000
 - D. \$48,000
23. The segment margin for Product T was:
- A. \$45,000
 - B. \$85,000
 - C. \$(10,000)
 - D. \$80,000
24. The ARB Company has two divisions: Electronics and DVD/Video Sales. Electronics has traceable fixed expenses of \$146,280 and the DVD/Video Sales has traceable fixed expenses of \$81,765. If ARB Company has a total of \$322,490 in fixed expenses, what are its common fixed expenses?
- A. \$94,445
 - B. \$322,490
 - C. \$228,045
 - D. \$47,223
25. A “bucket” in which costs are accumulated that relate to a single activity measure in the activity-based costing system is commonly known as:
- A. An activity measure.
 - B. An activity cost pool.
 - C. A cost driver.
 - D. A duration driver.
26. Which of the following is NOT a limitation of activity-based costing?
- A. Maintaining an activity-based costing system is more costly than maintaining a traditional direct labor-based costing system.
 - B. Changing from a traditional direct labor-based costing system to an activity-based costing system changes product margins and other key performance indicators used by managers. Such changes are often resisted by managers.
 - C. ABC data can easily be misinterpreted and must be used with care when used in making decisions.
 - D. Activity-based management (ABM) can be used in conjunction with ABC to improve processes and reduce costs.

27. Tadlock Corporation has provided the following data concerning its overhead costs for the coming year:

Wages and salaries	\$440,000
Depreciation.....	120,000
Rent.....	<u>160,000</u>
Total.....	<u>\$720,000</u>

The company has an activity-based costing system with the following three activity cost pools and estimated activity for the coming year:

Activity Cost Pool	Total Activity
Assembly.....	40,000 labor-hours
Order processing	600 orders
Other.....	Not applicable

The Other activity cost pool does not have a measure of activity; it is used to accumulate costs of idle capacity and organization-sustaining costs.

The distribution of resource consumption across activity cost pools is given below:

	Activity Cost Pools			
	Assembly	Order Processing	Other	Total
Wages and salaries	40%	35%	25%	100%
Depreciation.....	20%	30%	50%	100%
Rent.....	10%	65%	25%	100%

The activity rate for the Order Processing activity cost pool is closest to:

- A. \$420 per order
 - B. \$520 per order
 - C. \$490 per order
 - D. \$780 per order
28. Spendlove Corporation has provided the following data from its activity-based costing system:

Activity Cost Pool	Total Cost	Total Activity
Assembly	\$1,114,920	57,000 machine-hours
Processing orders.....	\$47,016	1,800 orders
Inspection	\$107,328	1,560 inspection-hours

The company makes 430 units of product S78N a year, requiring a total of 1,120 machine-hours, 40 orders, and 30 inspection-hours per year. The product's direct materials cost is \$49.81 per unit and its direct labor cost is \$12.34 per unit. The product sells for \$129.90 per unit.

According to the activity-based costing system, the product margin for product S78N is:

- A. \$4,116.50
- B. \$29,132.50
- C. \$6,180.50
- D. \$5,161.30

29. Wecker Corporation uses the following activity rates from its activity-based costing to assign overhead costs to products:

Activity Cost Pools	Activity Rate
Setting up batches	\$79.50 per batch
Processing customer orders.....	\$71.31 per customer order
Assembling products.....	\$7.06 per assembly hour

Data concerning two products appear below:

	Product V09X	Product A09X
Number of batches.....	69	12
Number of customer orders.....	20	9
Number of assembly hours.....	492	697

How much overhead cost would be assigned to Product V09X using the activity-based costing system?

- A. \$157.87
- B. \$91,722.47
- C. \$10,385.22
- D. \$5,485.50

THE ACTIVITIES IDENTIFIED IN QUESTIONS 30 THROUGH 32 RELATE TO THE COMMANDORES MANUFACTURING COMPANY, A MANUFACTURER OF A VARIETY OF PRODUCTS.

30. Changing machine setting between batches of different products is a(an)
- A. Unit-level activity.
 - B. Batch-level activity.
 - C. Product-level activity.
 - D. Organization-sustaining activity
31. Preparation of the company's annual report by the accounting department is a(an)
- A. Unit-level activity.
 - B. Batch-level activity.
 - C. Product-level activity.
 - D. Organization-sustaining activity.
32. Making a sales call by a manufacturing representative is a(an)
- A. Customer-level activity.
 - B. Product-level activity.
 - C. Batch-level activity.
 - D. Organization-sustaining activity

QUESTIONS 33 AND 34 ARE BASED ON THE FOLLOWING DATA:

Gators Manufacturing Company uses an activity-based costing system with three activity cost pools: Order Size; Customer Support; and Other. The company has provided the following data concerning its costs and its activity based costing system:

Costs:

Manufacturing overhead	\$600,000
Selling and administrative expenses	<u>\$300,000</u>
Total	<u>\$900,000</u>

Distribution of resource consumption:

	Activity Cost Pools			Total
	Order <i>Size</i>	Customer <i>Support</i>	Other	
Manufacturing overhead	60%	30%	10%	100%
Selling and administrative expenses	50%	45%	5%	100%

The "Other" activity cost pool consists of the costs of idle capacity and organization-sustaining costs.

33. How much cost, in total, would be allocated to the "Order Size" activity cost pool?
- A. \$510,000
 B. \$600,000
 C. \$240,000
 D. \$700,000
34. How much cost, in total, would be allocated to the "Customer Support" activity cost pool?
- A. \$400,000
 B. \$305,000
 C. \$315,000
 D. \$700,000

QUESTIONS 35 AND 36 ARE BASED ON THE FOLLOWING QUESTIONS:

The Blue Raiders Company is a wholesale distributor that uses activity-based costing for all of its overhead costs. The company has identified two activities: Filling Orders activity and Customer Support activity. The company has the following budgeted data:

<u>Activity Cost Pool</u>	<u>Total Cost</u>	<u>Total Activity</u>
Filling orders	\$300,000	30,000 orders
Customer support	\$100,000	200 customers

35. What is the activity rate for the "Filling Orders" activity?
- A. \$500 per customer
 B. \$1,000 per customer
 C. \$10 per order
 D. \$1,000 per order

36. What is the activity rate for the “Customer Support” activity?
- \$500 per customer
 - \$1,000 per customer
 - \$10 per order
 - \$1,000 per order
37. The Rebels Bank & Trusts Company (RBTC) uses an activity-based costing system. For the year 2007, RBTC has the following activity rates:

Opening accounts.....\$20 per new account
 Processing deposits and withdrawals.....\$2 per deposit or withdrawal
 Processing other customer transactions\$30 per other transaction.

During October 2007, Phillip Fulmer, *a new customer*, opened an account with the bank and used the following services:

Made 20 deposits
 Made 30 withdrawals
 Applied for a \$5,000 loan (considered “other transaction.”)

What is the bank’s total cost for servicing Phil during the month of October?

- \$20
 - \$30
 - \$50
 - \$150
38. Which of the following statements concerning budgeting is *incorrect*? Budgeting is
- Of no use to small businesses.
 - A quantitative expression of management’s plans.
 - Useful for promoting communication among the various organizational units.
 - Necessary for evaluating managers’ financial performance.
39. Which of the following is NOT an advantage of budgeting?
- Budgeting provides a means of communicating management’s plans throughout the organization.
 - Budgeting provides a means of eliminating fraudulent acts by a company’s chief financial officer.
 - Budgeting forces managers to think about and plan for the future.
 - Budgeting provides a means of allocating resources.
40. Which of the following statements is correct concerning self-imposed budgets?
- Self-imposed budgets are not subject to review by higher levels of management since to do so would contradict the participative aspect of the budgeting processing.
 - Self-imposed budgets are not subject to review by higher levels of management except in specific cases where the input of higher management is required.
 - Self-imposed budgets are subject to review by higher levels of management in order to prevent the budgets from becoming too loose.
 - Self-imposed budgets are not critical to the success of a budgeting program.

41. A 12-month budget that rolls forward one month (or quarter) as the current month (or quarter) is completed is known as a
- Zero-based budget.
 - Static budget.
 - Flexible budget.
 - Continuous budget.
42. In developing a comprehensive budget for a manufacturing company, which one of the following budgets should be done first?
- Sales budget.
 - Production budget
 - Budgeted balance sheet.
 - Budgeted income statement.
43. The process that involves developing objectives and preparing various budgets to achieve those objectives is normally referred to as
- The control process.
 - The feedback process.
 - The planning process.
 - The evaluation process.

QUESTIONS 44 AND 45 ARE BASED ON THE FOLLOWING PRODUCTION BUDGET FOR THE RAZORBACKS MANUFACTURING COMPANY:

The Razorbacks Manufacturing Company is planning its production for the next four months. The company has the following projected sales data:

November.....	70,000 units
December	60,000 units
January	40,000 units
February	50,000 units

Inventory at the end of each month is equal to ten percent of the budgeted sales for the following month. On November 1, 7,000 units of inventory are expected to be on hand.

44. How many units does Razorbacks plan to produce in November?
- 76,000 units.
 - 69,000 units.
 - 58,000 units.
 - 41,000 units.
45. What is the budgeted ending inventory for January?
- 7,000 units.
 - 6,000 units.
 - 5,000 units.
 - 4,000 units.

QUESTIONS 46 AND 47 ARE BASED ON THE FOLLOWING INFORMATION.

The Hurricanes Company manufactures Product VFT-II. The company has the following budgeted production data for VFT-II:

	<u>Units of VFT-II to be produced</u>
November.....	50,000
December	40,000
January	30,000

Two feet of raw material T20 are required to make one unit of VFT-II. The company target raw material inventory level at the end of each month is 20% of the amount of raw materials to be used in production during the following month. Twenty thousand feet of T20 are expected to be on hand on November 1.

46. How many feet of T20 will be used in production during November?
- A. 50,000 feet.
 - B. 80,000 feet.
 - C. 100,000 feet.
 - D. 120,000 feet.
47. What is the amount of required purchase for December?
- A. 80,000 feet.
 - B. 96,000 feet.
 - C. 76,000 feet.
 - D. 150,000 feet.
48. Terrapins Company, a retailer, has the following data concerning its purchases of merchandise:

	<i>Purchase on account</i>
October - actual.....	\$35,000
November - actual.....	25,000
December - budgeted	50,000

Terrapins pays 60% of a month's purchases in the month of purchase and the remaining 40% in the month following purchase. What is the amount of the estimated total payment to suppliers of merchandise during November?

- A. \$25,000
- B. \$29,000
- C. \$31,000
- D. \$100,000

QUESTIONS 49 AND 50 ARE BASED ON THE FOLLOWING INFORMATION ABOUT THE SOONERS COMPANY:

Sooners Company's accountant is in the process of preparing the company's budgeted financial statements for November and has collected the following data.

	<i>Credit Sales</i>
September - actual.....	\$ 90,000
October - actual.....	100,000
November - budgeted.....	120,000

Prior experience has indicated that 70% of a month's sales are collected in the month of sale, 20% in the month following sale, and the remaining 10% in the second month following sale.

49. What is the amount of the estimated collections from credit sales that can be expected during November?
- A. \$120,000
 - B. \$110,000
 - C. \$113,000
 - D. \$90,000
50. What is the budgeted balance in accounts receivable at the end of November?
- A. \$46,000
 - B. \$36,000
 - C. \$94,000
 - D. \$34,000
51. On November 1, the Trojans Company has a cash balance of \$10,000. Budgeted selling and administrative expense for November totals \$40,000, of which \$20,000 is depreciation expense on office equipment. During November, Trojans plans to purchase a \$25,000 truck for cash and to borrow \$35,000 from a local bank. Cash receipts from sales are expected to be \$200,000. Total cash disbursements for merchandise are expected to be \$180,000. What is the amount of expected cash balance at November 30?
- A. \$33,000
 - B. \$20,000
 - C. \$0
 - D. \$10,000.

QUESTIONS 52 THROUGH 55 ARE BASED ON THE FOLLOWING DATA OF WOODS COMPANY

Woods Company is preparing its cash budget for the month of May. On May 1, Woods has a \$20,000 balance in its only cash account.

	<i>Credit Sales</i>	<i>Purchase on account</i>
March - actual	90,000	35,000
April - actual	100,000	25,000
May - budgeted	120,000	50,000

Prior experience has indicated that 50% of a month's sales are collected in the month of sale, 40% in the month following sale, and the remaining 10% in the second month following sale.

Woods pays 40% of a month's purchases in the month of purchase and the remaining 60% in the month following purchase.

Selling and administrative expenses budgeted for the May total \$50,000 including depreciation expense of \$10,000.

Woods plans to purchase a new delivery truck costing \$25,000 in May. The company also plans to pay quarterly cash dividends totaling \$15,000 during the month.

52. What is the amount of the estimated collections from credit sales that can be expected during May?
 - A. \$120,000
 - B. \$110,000
 - C. \$109,000
 - D. \$90,000

53. What is the amount of the estimated disbursements for purchases on account that can be expected during May?
 - A. \$36,050
 - B. \$40,000
 - C. \$35,000
 - D. \$115,000

54. What is the amount of total cash disbursements for May?
 - A. \$25,000
 - B. \$40,000
 - C. \$15,000
 - D. \$115,000

55. What is the amount of expected cash balance at May 31?
 - A. \$20,000
 - B. \$18,000
 - C. \$14,000
 - D. \$10,000

SUGGESTED ANSWERS

Q	A	Q	A
1	A	28	A
2	B	29	C
3	D	30	B
4	B	31	D
5	C	32	A
6	C	33	A
7	A	34	C
8	B	35	C
9	B	36	A
10	C	37	D
11	C	38	A
12	A	39	B
13	C	40	C
14	A	41	D
15	A	42	A
16	C	43	C
17	B	44	B
18	B	45	C
19	A	46	C
20	B	47	C
21	D	48	B
22	B	49	C
23	A	50	A
24	A	51	B
25	B	52	C
26	D	53	C
27	C	54	D
		55	C