

Chapter 08 Profit Planning **Answer Key**

True / False Questions

1. The production budget is typically prepared prior to the sales budget.

FALSE

AACSB: Reflective Thinking

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Comprehension

Learning Objective: 08-01 Understand why organizations budget and the processes they use to create budgets

Learning Objective: 08-02 Prepare a sales budget; including a schedule of expected cash collections

Learning Objective: 08-03 Prepare a production budget

Level: Medium

2. One benefit of budgeting is that it coordinates the activities of the entire organization.

TRUE

AACSB: Reflective Thinking

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Knowledge

Learning Objective: 08-01 Understand why organizations budget and the processes they use to create budgets

Level: Easy

3. Both planning and control are needed for an effective budgeting system.

TRUE

AACSB: Reflective Thinking

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Knowledge

Learning Objective: 08-01 Understand why organizations budget and the processes they use to create budgets

Level: Easy

4. One difficulty with self-imposed budgets is that they are not subject to any type of review.

FALSE

AACSB: Reflective Thinking

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Comprehension

Learning Objective: 08-01 Understand why organizations budget and the processes they use to create budgets

Level: Medium

5. The master budget is a network consisting of many separate budgets that are interdependent.

TRUE

AACSB: Reflective Thinking

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Knowledge

Learning Objective: 08-01 Understand why organizations budget and the processes they use to create budgets

Level: Easy

6. Planning and control are essentially the same thing.

FALSE

AACSB: Reflective Thinking

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Knowledge

Learning Objective: 08-01 Understand why organizations budget and the processes they use to create budgets

Level: Easy

7. Sales forecasts are drawn up after the cash budget has been completed because only then are the funds available for marketing known.

FALSE

AACSB: Reflective Thinking

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Comprehension

Learning Objective: 08-01 Understand why organizations budget and the processes they use to create budgets

Level: Medium

Chapter 08 - Profit Planning

8. A sales budget is a detailed schedule showing the expected sales for the budget period; typically, it is expressed in both dollars and units of product.

TRUE

AACSB: Reflective Thinking

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Knowledge

Learning Objective: 08-02 Prepare a sales budget; including a schedule of expected cash collections

Level: Easy

9. Both variable and fixed manufacturing overhead costs are included in the manufacturing overhead budget.

TRUE

AACSB: Reflective Thinking

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Knowledge

Learning Objective: 08-06 Prepare a manufacturing overhead budget

Level: Easy

10. In the selling and administrative budget, the non-cash charges (such as depreciation) are added to the total budgeted selling and administrative expenses to determine the expected cash disbursements for selling and administrative expenses.

FALSE

AACSB: Reflective Thinking

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Comprehension

Learning Objective: 08-07 Prepare a selling and administrative expense budget

Level: Medium

Multiple Choice Questions

11. Which of the following represents the normal sequence in which the indicated budgets are prepared?

- A. Direct Materials, Cash, Sales
- B. Production, Cash, Income Statement**
- C. Sales, Balance Sheet, Direct Labor
- D. Production, Manufacturing Overhead, Sales

AACSB: Reflective Thinking

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Comprehension

Learning Objective: 08-01 Understand why organizations budget and the processes they use to create budgets

Level: Medium

12. Which of the following is not a benefit of budgeting?

- A. It reduces the need for tracking actual cost activity.**
- B. It sets benchmarks for evaluation performance.
- C. It uncovers potential bottlenecks.
- D. It formalizes a manager's planning efforts.

AACSB: Reflective Thinking

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Knowledge

Learning Objective: 08-01 Understand why organizations budget and the processes they use to create budgets

Level: Easy

13. Self-imposed budgets typically are:

- A. not subject to review by higher levels of management since to do so would contradict the participative aspect of the budgeting processing.
- B. not subject to review by higher levels of management except in specific cases where the input of higher management is required.
- C. subject to review by higher levels of management in order to prevent the budgets from becoming too loose.**
- D. not critical to the success of a budgeting program.

AACSB: Reflective Thinking

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Knowledge

Learning Objective: 08-01 Understand why organizations budget and the processes they use to create budgets

Level: Easy

14. Which of the following represents the correct order in which the indicated budget documents for a manufacturing company would be prepared?
- A. Sales budget, cash budget, direct materials budget, direct labor budget
 - B. Production budget, sales budget, direct materials budget, direct labor budget
 - C. Sales budget, cash budget, production budget, direct materials budget
 - D. Selling and administrative expense budget, cash budget, budgeted income statement, budgeted balance sheet**

AACSB: Reflective Thinking

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Comprehension

Learning Objective: 08-01 Understand why organizations budget and the processes they use to create budgets

Level: Medium

15. National Telephone company has been forced by competition to put much more emphasis on planning and controlling its costs. Accordingly, the company's controller has suggested initiating a formal budgeting process. Which of the following steps will NOT help the company gain maximum acceptance by employees of the proposed budgeting system?
- A. Implementing the change quickly.**
 - B. Including in departmental responsibility reports only those items that are under the department manager's control.
 - C. Demonstrating top management support for the budgeting program.
 - D. Ensuring that favorable deviations of actual results from the budget, as well as unfavorable deviations, are discussed with the responsible managers.

AACSB: Reflective Thinking

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Knowledge

Learning Objective: 08-01 Understand why organizations budget and the processes they use to create budgets

Level: Easy

Source: CMA, adapted

16. A continuous (or perpetual) budget:

- A. is prepared for a range of activity so that the budget can be adjusted for changes in activity.
- B.** is a plan that is updated monthly or quarterly, dropping one period and adding another.
- C. is a strategic plan that does not change.
- D. is used in companies that experience no change in sales.

AACSB: Reflective Thinking

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Comprehension

Learning Objective: 08-01 Understand why organizations budget and the processes they use to create budgets

Level: Medium

Source: CMA, adapted

17. Which of the following statements is not correct?

- A. The sales budget is the starting point in preparing the master budget.
- B. The sales budget is constructed by multiplying the expected sales in units by the sales price.
- C. The sales budget generally is accompanied by a computation of expected cash receipts for the forthcoming budget period.
- D.** The cash budget must be prepared prior to the sales budget because managers want to know the expected cash collections on sales made to customers in prior periods before projecting sales for the current period.

AACSB: Reflective Thinking

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Comprehension

Learning Objective: 08-02 Prepare a sales budget; including a schedule of expected cash collections

Level: Medium

18. Budgeted production needs are determined by:

- A. adding budgeted sales in units to the desired ending inventory in units and deducting the beginning inventory in units from this total.
- B. adding budgeted sales in units to the beginning inventory in units and deducting the desired ending inventory in units from this total.
- C. adding budgeted sales in units to the desired ending inventory in units.
- D. deducting the beginning inventory in units from budgeted sales in units.

AACSB: Reflective Thinking

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Comprehension

Learning Objective: 08-03 Prepare a production budget

Level: Medium

19. The budgeted amount of raw materials to be purchased is determined by:

- A. adding the desired ending inventory of raw materials to the raw materials needed to meet the production schedule.
- B. subtracting the beginning inventory of raw materials from the raw materials needed to meet the production schedule.
- C. adding the desired ending inventory of raw materials to the raw materials needed to meet the production schedule and subtracting the beginning inventory of raw materials.
- D. adding the beginning inventory of raw materials to the raw materials needed to meet the production schedule and subtracting the desired ending inventory of raw materials.

AACSB: Reflective Thinking

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Comprehension

Learning Objective: 08-04 Prepare a direct materials budget; including a schedule of expected cash disbursements for purchase of materials

Level: Medium

20. Which of the following is not correct regarding the manufacturing overhead budget?
- A.** Total budgeted cash disbursements for manufacturing overhead is equal to the total of budgeted variable and fixed manufacturing overhead.
 - B. Manufacturing overhead costs should be broken down by cost behavior.
 - C. The manufacturing overhead budget should provide a schedule of all costs of production other than direct materials and direct labor.
 - D. A schedule showing budgeted cash disbursements for manufacturing overhead should be prepared for use in developing the cash budget.

AACSB: Reflective Thinking
 AICPA BB: Critical Thinking
 AICPA FN: Measurement
 Bloom's: Comprehension
 Learning Objective: 08-06 Prepare a manufacturing overhead budget
 Level: Medium

21. Shown below is the sales forecast for Cooper Inc. for the first four months of the coming year.

	Jan	Feb	Mar	Apr
Cash sales	\$15,000	\$24,000	\$18,000	\$14,000
Credit sales	\$100,000	\$120,000	\$90,000	\$70,000

On average, 50% of credit sales are paid for in the month of the sale, 30% in the month following sale, and the remainder are paid two months after the month of the sale. Assuming there are no bad debts, the expected cash inflow in March is:

- A. \$138,000
- B. \$122,000
- C.** \$119,000
- D. \$108,000

Cash inflow for March:

March cash sales	\$ 18,000
March credit sales collected in March ($\$90,000 \times 50\%$)	45,000
February credit sales collected in March ($\$120,000 \times 30\%$)	36,000
January credit sales collected in March ($\$100,000 \times 20\%$)	20,000
Total cash inflow in March	\$119,000

AACSB: Analytic
 AICPA BB: Critical Thinking
 AICPA FN: Measurement
 Bloom's: Application
 Learning Objective: 08-02 Prepare a sales budget; including a schedule of expected cash collections
 Level: Medium
 Source: CMA, adapted

22. Budgeted sales in Allen Company over the next four months are given below:

	September	October	November	December
Budgeted sales	\$100,000	\$160,000	\$180,000	\$120,000

Twenty-five percent of the company's sales are for cash and 75% are on account. Collections for sales on account follow a stable pattern as follows: 50% of a month's credit sales are collected in the month of sale, 30% are collected in the month following sale, and 15% are collected in the second month following sale. The remainder are uncollectible. Given these data, cash collections for December should be:

- A. \$138,000
- B. \$133,500**
- C. \$120,000
- D. \$103,500

Cash collections for December:

December cash sales ($\$120,000 \times 25\%$)	\$ 30,000
December credit sales collected in December ($\$120,000 \times 75\% \times 50\%$)	45,000
November credit sales collected in December ($\$180,000 \times 75\% \times 30\%$)	40,500
October credit sales collected in December ($\$160,000 \times 75\% \times 15\%$)	18,000
Total cash collections in December	\$133,500

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-02 Prepare a sales budget; including a schedule of expected cash collections

Level: Medium

23. The following data have been taken from the budget reports of Brandon company, a merchandising company.

	Purchases	Sales
January	\$160,000	\$100,000
February	\$160,000	\$200,000
March	\$160,000	\$240,000
April	\$140,000	\$300,000
May	\$140,000	\$260,000
June	\$120,000	\$240,000

Forty percent of purchases are paid for in cash at the time of purchase, and 30% are paid for in each of the next two months. Purchases for the previous November and December were \$150,000 per month. Employee wages are 10% of sales for the month in which the sales occur. Selling and administrative expenses are 20% of the following month's sales. (July sales are budgeted to be \$220,000.) Interest payments of \$20,000 are paid quarterly in January and April. Brandon's cash disbursements for the month of April would be:

- A. \$140,000
- B. \$254,000**
- C. \$200,000
- D. \$248,000

Cash disbursements for April:

Purchases:	
Purchases in April ($\$140,000 \times 40\%$)	\$ 56,000
Purchases in March ($\$160,000 \times 30\%$)	48,000
Purchases in February ($\$160,000 \times 30\%$)	48,000
Employee wages:	
Employee wages in April ($\$300,000 \times 10\%$)	30,000
Selling and administrative expenses:	
Selling and administrative expenses ($\$260,000 \times 20\%$)	52,000
Interest	20,000
Total cash disbursements for April	\$254,000

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-03 Prepare a production budget

Learning Objective: 08-08 Prepare a cash budget

Level: Hard

Source: CMA, adapted

24. Walsh Company expects sales of Product W to be 60,000 units in April, 75,000 units in May and 70,000 units in June. The company desires that the inventory on hand at the end of each month be equal to 40% of the next month's expected unit sales. Due to excessive production during March, on March 31 there were 25,000 units of Product W in the ending inventory. Given this information, Walsh Company's production of Product W for the month of April should be:

- A. 60,000 units
- B. 65,000 units**
- C. 75,000 units
- D. 66,000 units

	April
Budgeted unit sales	60,000
Add desired ending finished goods inventory ¹	30,000
Total needs	90,000
Less beginning finished goods inventory	25,000
Required production in units	65,000

¹May sales of 75,000 units × 40% = 30,000 units

AACSB: Analytic
 AICPA BB: Critical Thinking
 AICPA FN: Measurement
 Bloom's: Application
 Learning Objective: 08-03 Prepare a production budget
 Level: Medium

25. Berol Company plans to sell 200,000 units of finished product in July and anticipates a growth rate in sales of 5% per month. The desired monthly ending inventory in units of finished product is 80% of the next month's estimated sales. There are 150,000 finished units in inventory on June 30.

Berol Company's production requirement in units of finished product for the three-month period ending September 30 is:

- A. 712,025 units
- B. 630,500 units
- C. 664,000 units
- D. 665,720 units**

	July	August	September	Quarter
Budgeted unit sales	200,000	210,000 ¹	220,500 ²	630,500
Add desired ending finished goods inventory	168,000 ³	176,400 ⁴	185,220 ⁵	185,220
Total needs	368,000	386,400	405,720	815,720
Less beginning finished goods inventory	150,000	168,000	176,400	150,000
Required production in units	218,000	218,400	229,320	665,720

¹Unit sales of 200,000 × 105% = 210,000

²Unit sales of 210,000 × 105% = 220,500

³Unit sales of 210,000 × 80% = 168,000

⁴Unit sales of 220,500 × 80% = 176,400

⁵Unit sales of 220,500 × 105% × 80% = 185,220

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-03 Prepare a production budget

Level: Hard

Source: CMA, adapted

26. The Willsey Merchandise Company has budgeted \$40,000 in sales for the month of December. The company's cost of goods sold is 30% of sales. If the company has budgeted to purchase \$18,000 in merchandise during December, then the budgeted change in inventory levels over the month of December is:

- A. \$6,000 increase
- B. \$10,000 decrease
- C. \$22,000 decrease
- D. \$15,000 increase

$$\text{COGS} = 0.30 \times \$40,000 = \$12,000$$

$$\text{Beginning merchandise inventory} + \text{Merchandise purchases} = \text{Ending merchandise inventory} + \text{COGS}$$

$$\text{Ending merchandise inventory} - \text{Beginning merchandise inventory} = \text{Merchandise purchases} - \text{COGS}$$

$$= \$18,000 - \$12,000 = \$6,000$$

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-03 Prepare a production budget

Level: Hard

27. Prestwich Company has budgeted production for next year as follows:

	Quarter			
	First	Second	Third	Fourth
Production in units	60,000	80,000	90,000	70,000

Two pounds of material A are required for each unit produced. The company has a policy of maintaining a stock of material A on hand at the end of each quarter equal to 25% of the next quarter's production needs for material A. A total of 30,000 pounds of material A are on hand to start the year. Budgeted purchases of material A for the second quarter would be:

- A. 82,500 pounds
- B. 165,000 pounds**
- C. 200,000 pounds
- D. 205,000 pounds

Budgeted purchases of material A:

	Second Quarter
Production in units	80,000
Pounds per unit of production	2
Pounds of raw material needed for production	160,000
Add desired ending inventory (90,000 units \times 2 pounds per unit \times 25%)	45,000
Total raw materials needs	205,000
Less beginning inventory (80,000 units \times 2 pounds per unit \times 25%)	40,000
Required purchases	165,000

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-04 Prepare a direct materials budget; including a schedule of expected cash disbursements for purchase of materials

Level: Medium

28. Veltri Corporation is working on its direct labor budget for the next two months. Each unit of output requires 0.77 direct labor-hours. The direct labor rate is \$11.20 per direct labor-hour. The production budget calls for producing 7,100 units in October and 6,900 units in November. The company guarantees its direct labor workers a 40-hour paid work week. With the number of workers currently employed, that means that the company is committed to paying its direct labor work force for at least 5,480 hours in total each month even if there is not enough work to keep them busy. What would be the total combined direct labor cost for the two months?

- A.** \$122,752.00
- B. \$120,736.00
- C. \$120,881.60
- D. \$122,606.40

Direct Labor Budget

	October	November	Total
Required production in units	7,100	6,900	
Direct labor-hours per unit	0.77	0.77	
Total direct labor-hours needed	5,467	5,313	
Minimum guaranteed paid labor-hours	5,480	5,480	
Direct labor cost per hour	\$11.20	\$11.20	
Total direct labor cost	\$61,376	\$61,376	\$122,752

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-05 Prepare a direct labor budget

Level: Easy

29. Hagos Corporation is working on its direct labor budget for the next two months. Each unit of output requires 0.84 direct labor-hours. The direct labor rate is \$9.40 per direct labor-hour. The production budget calls for producing 2,100 units in June and 1,900 units in July. If the direct labor work force is fully adjusted to the total direct labor-hours needed each month, what would be the total combined direct labor cost for the two months?

- A. \$15,792.00
- B. \$15,002.40
- C. \$16,581.60
- D.** \$31,584.00

Direct Labor Budget

	June	July	Total
Required production in units	2,100	1,900	
Direct labor-hours per unit	0.84	0.84	
Total direct labor-hours needed	1,764	1,596	
Direct labor cost per hour	\$9.40	\$9.40	
Total direct labor cost	\$16,581.60	\$15,002.40	\$31,584

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-05 Prepare a direct labor budget

Level: Easy

30. Shuck Inc. bases its manufacturing overhead budget on budgeted direct labor-hours. The direct labor budget indicates that 8,100 direct labor-hours will be required in May. The variable overhead rate is \$1.40 per direct labor-hour. The company's budgeted fixed manufacturing overhead is \$100,440 per month, which includes depreciation of \$8,910. All other fixed manufacturing overhead costs represent current cash flows. The May cash disbursements for manufacturing overhead on the manufacturing overhead budget should be:

- A.** \$102,870
- B. \$11,340
- C. \$91,530
- D. \$111,780

Manufacturing Overhead Budget

	May
Budgeted direct labor-hours	8,100
Variable manufacturing overhead rate	\$1.40
Variable manufacturing overhead	\$ 11,340
Fixed manufacturing overhead	100,440
Total manufacturing overhead	111,780
Less depreciation	8,910
Cash disbursement for manufacturing overhead	\$102,870

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-06 Prepare a manufacturing overhead budget

Level: Easy

31. The manufacturing overhead budget at Latronica Corporation is based on budgeted direct labor-hours. The direct labor budget indicates that 7,100 direct labor-hours will be required in August. The variable overhead rate is \$8.60 per direct labor-hour. The company's budgeted fixed manufacturing overhead is \$132,770 per month, which includes depreciation of \$24,850. All other fixed manufacturing overhead costs represent current cash flows. The company recomputes its predetermined overhead rate every month. The predetermined overhead rate for August should be:

- A. \$8.60
- B. \$27.30**
- C. \$23.80
- D. \$18.70

Manufacturing Overhead Rate

	August
Budgeted direct labor-hours	7,100
Variable manufacturing overhead rate	\$8.60
Variable manufacturing overhead	\$ 61,060
Fixed manufacturing overhead	132,770
Total manufacturing overhead (a)	\$193,830
Budgeted direct labor-hours (b)	7,100
Predetermined overhead rate (a) ÷ (b)	\$27.30

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-06 Prepare a manufacturing overhead budget

Level: Easy

32. Avitia Inc. bases its manufacturing overhead budget on budgeted direct labor-hours. The direct labor budget indicates that 3,700 direct labor-hours will be required in September. The variable overhead rate is \$5.70 per direct labor-hour. The company's budgeted fixed manufacturing overhead is \$48,100 per month, which includes depreciation of \$5,550. All other fixed manufacturing overhead costs represent current cash flows. The company recomputes its predetermined overhead rate every month. The predetermined overhead rate for September should be:

- A. \$5.70
- B. \$13.00
- C. \$18.70**
- D. \$17.20

Manufacturing Overhead Rate

	September
Budgeted direct labor-hours	3,700
Variable manufacturing overhead rate	\$5.70
Variable manufacturing overhead	\$21,090
Fixed manufacturing overhead	48,100
Total manufacturing overhead (a)	\$69,190
Budgeted direct labor-hours (b)	3,700
Predetermined overhead rate (a) ÷ (b)	\$18.70

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-06 Prepare a manufacturing overhead budget

Level: Easy

33. The manufacturing overhead budget at Cutchin Corporation is based on budgeted direct labor-hours. The direct labor budget indicates that 2,800 direct labor-hours will be required in September. The variable overhead rate is \$7.00 per direct labor-hour. The company's budgeted fixed manufacturing overhead is \$43,120 per month, which includes depreciation of \$3,640. All other fixed manufacturing overhead costs represent current cash flows. The September cash disbursements for manufacturing overhead on the manufacturing overhead budget should be:

- A.** \$59,080
- B. \$62,720
- C. \$19,600
- D. \$39,480

Manufacturing Overhead Budget

	September
Budgeted direct labor-hours	2,800
Variable manufacturing overhead rate	\$7.00
Variable manufacturing overhead	\$19,600
Fixed manufacturing overhead	43,120
Total manufacturing overhead	62,720
Less depreciation	3,640
Cash disbursement for manufacturing overhead	\$59,080

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-06 Prepare a manufacturing overhead budget

Level: Easy

34. The selling and administrative expense budget of Breckinridge Corporation is based on budgeted unit sales, which are 5,500 units for June. The variable selling and administrative expense is \$1.00 per unit. The budgeted fixed selling and administrative expense is \$101,200 per month, which includes depreciation of \$6,050 per month. The remainder of the fixed selling and administrative expense represents current cash flows. The cash disbursements for selling and administrative expenses on the June selling and administrative expense budget should be:

- A. \$100,650
- B. \$106,700
- C. \$5,500
- D. \$95,150

Selling and Administrative Expense Budget

	June
Budgeted unit sales	5,500
Variable selling and administrative expense per unit	\$1.00
Variable selling and administrative expense	\$ 5,500
Fixed selling and administrative expense	101,200
Total selling and administrative expense	106,700
Less depreciation	6,050
Cash disbursements for selling and administrative expenses	<u>\$100,650</u>

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-07 Prepare a selling and administrative expense budget

Level: Easy

35. Lunderville Inc. bases its selling and administrative expense budget on budgeted unit sales. The sales budget shows 3,200 units are planned to be sold in December. The variable selling and administrative expense is \$3.10 per unit. The budgeted fixed selling and administrative expense is \$60,800 per month, which includes depreciation of \$6,720 per month. The remainder of the fixed selling and administrative expense represents current cash flows. The cash disbursements for selling and administrative expenses on the December selling and administrative expense budget should be:

- A. \$70,720
- B. \$54,080
- C. \$64,000**
- D. \$9,920

Selling and Administrative Expense Budget

	December
Budgeted unit sales	3,200
Variable selling and administrative expense per unit	\$3.10
Variable selling and administrative expense	\$ 9,920
Fixed selling and administrative expense	60,800
Total selling and administrative expense	70,720
Less depreciation	6,720
Cash disbursements for selling and administrative expenses	<u>\$64,000</u>

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-07 Prepare a selling and administrative expense budget

Level: Easy

36. The Carlquist Company makes and sells a product called Product K. Each unit of Product K sells for \$24 dollars and has a unit variable cost of \$18. The company has budgeted the following data for November:

- Sales of \$1,152,200, all in cash.
- A cash balance on November 1 of \$48,000.
- Cash disbursements (other than interest) during November of \$1,160,000.
- A minimum cash balance on November 30 of \$60,000.

If necessary, the company will borrow cash from a bank. The borrowing will be in multiples of \$1,000 and will bear interest at 2% per month. All borrowing will take place at the beginning of the month. The November interest will be paid in cash during November. The amount of cash needed to be borrowed on November 1 to cover all cash disbursements and to obtain the desired November 30 cash balance is:

- A. \$20,000
- B. \$21,000**
- C. \$37,000
- D. \$38,000

Cash Budget

Cash balance, beginning	\$ 48,000
Add cash receipts (all sales are for cash)	1,152,200
Total cash available	1,200,200
Less cash disbursements	1,160,000
Excess (deficiency) of cash available over disbursements	40,200
Interest (2% × \$21,000*)	420
Cash balance before financing	39,780
Financing	21,000
Cash balance, ending	\$ 60,780

Since the company desires an ending cash balance of at least \$60,000, the excess of cash available over disbursements is \$40,200, and cash must be borrowed in multiples of \$1,000, it would appear that the company must borrow at least \$21,000. The remainder of the computations establish that this borrowing will suffice, including the interest on the borrowing.

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-08 Prepare a cash budget

Level: Hard

37. Mosbey Inc. is working on its cash budget for June. The budgeted beginning cash balance is \$16,000. Budgeted cash receipts total \$188,000 and budgeted cash disbursements total \$187,000. The desired ending cash balance is \$40,000. The excess (deficiency) of cash available over disbursements for June will be:

- A. \$15,000
- B. \$1,000
- C. \$17,000**
- D. \$204,000

Cash Budget

Cash balance, beginning	\$ 16,000
Add cash receipts (all sales are for cash)	188,000
Total cash available	204,000
Less cash disbursements	187,000
Excess (deficiency) of cash available over disbursements	17,000
Financing (\$40,000 – \$17,000)	23,000
Cash balance, ending	\$ 40,000

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-08 Prepare a cash budget

Level: Easy

38. Avril Company makes collections on sales according to the following schedule:

30% in the month of sale
60% in the month following sale
8% in the second month following sale

The following sales are expected:

	Expected Sales
January	\$100,000
February	\$120,000
March	\$110,000

Cash collections in March should be budgeted to be:

- A. \$110,000
- B. \$110,800
- C. \$105,000
- D. \$113,000**

Cash collections for March:

March credit sales collected in March ($\$110,000 \times 30\%$)	\$ 33,000
February credit sales collected in March ($\$120,000 \times 60\%$)	72,000
January credit sales collected in March ($\$100,000 \times 8\%$)	8,000
Total cash collections in March	\$113,000

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-08 Prepare a cash budget

Level: Easy

39. Deschambault Inc. is working on its cash budget for December. The budgeted beginning cash balance is \$14,000. Budgeted cash receipts total \$127,000 and budgeted cash disbursements total \$126,000. The desired ending cash balance is \$40,000. To attain its desired ending cash balance for December, the company needs to borrow:

- A.** \$25,000
- B. \$0
- C. \$55,000
- D. \$40,000

Cash Budget

Cash balance, beginning	\$ 14,000
Add cash receipts (all sales are for cash)	127,000
Total cash available	141,000
Less cash disbursements	126,000
Excess (deficiency) of cash available over disbursements	15,000
Financing (\$40,000 – \$15,000)	25,000
Cash balance, ending	\$ 40,000

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-08 Prepare a cash budget

Level: Easy

Diltex Farm Supply is located in a small town in the rural west. Data regarding the store's operations follow:

- Sales are budgeted at \$220,000 for November, \$200,000 for December, and \$210,000 for January.
- Collections are expected to be 70% in the month of sale, 27% in the month following the sale, and 3% uncollectible.
- The cost of goods sold is 65% of sales.
- The company desires to have an ending merchandise inventory at the end of each month equal to 50% of the next month's cost of goods sold. Payment for merchandise is made in the month following the purchase.
- Other monthly expenses to be paid in cash are \$22,500.
- Monthly depreciation is \$19,000.
- Ignore taxes.

Statement of Financial Position	
October 31	
Assets	
Cash	\$ 16,000
Accounts receivable (net of allowance for uncollectible accounts)	76,000
Merchandise inventory	71,500
Property, plant and equipment (net of \$536,000 accumulated depreciation)	<u>956,000</u>
Total assets	<u>\$1,119,500</u>
Liabilities and Stockholders' Equity	
Accounts payable	\$ 147,000
Common stock	840,000
Retained earnings	<u>132,500</u>
Total liabilities and stockholders' equity	<u>\$1,119,500</u>

Chapter 08 - Profit Planning

40. Expected cash collections in December are:

- A. \$59,400
- B. \$140,000
- C. \$199,400**
- D. \$200,000

Cash collections for December:

November credit sales collected in December ($\$220,000 \times 27\%$)	59,400
December credit sales collected in December ($\$200,000 \times 70\%$)	\$140,000
Total cash collections in December	\$199,400

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-02 Prepare a sales budget; including a schedule of expected cash collections

Level: Hard

41. The cost of December merchandise purchases would be:

- A. \$133,250**
- B. \$68,250
- C. \$130,000
- D. \$143,000

December merchandise purchases:

	November	December	January
Sales	\$220,000	\$200,000	\$210,000
Budgeted cost of goods sold (65% of sales)	\$143,000	\$130,000	\$136,500
Add desired ending merchandise inventory (50% of next month's cost of goods sold)	65,000	68,250	
Total needs	208,000	198,250	
Less beginning merchandise inventory	71,500	65,000	
Required purchases	\$136,500	\$133,250	

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-04 Prepare a direct materials budget; including a schedule of expected cash disbursements for purchase of materials

Level: Hard

42. December cash disbursements for merchandise purchases would be:

- A.** \$136,500
- B. \$68,250
- C. \$133,250
- D. \$130,000

	November	December	January
Sales	\$220,000	\$200,000	\$210,000
Budgeted cost of goods sold (65% of sales)	\$143,000	\$130,000	\$136,500
Add desired ending merchandise inventory (50% of next month's cost of goods sold)	65,000	68,250	
Total needs	208,000	198,250	
Less beginning merchandise inventory	71,500	65,000	
Required purchases	\$136,500	\$133,250	

The company pays for its purchases in the month following purchase, so the cash disbursements in December would equal the November purchases of \$136,500.

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-04 Prepare a direct materials budget; including a schedule of expected cash disbursements for purchase of materials

Level: Hard

43. The difference between cash receipts and cash disbursements for December would be:

- A. \$17,900
- B. \$22,500
- C. \$40,400**
- D. \$62,900

Cash collections for December:

November credit sales collected in December ($\$220,000 \times 27\%$)	59,400
December credit sales collected in December ($\$200,000 \times 70\%$)	\$140,000
Total cash collections in December	\$199,400

Cash disbursements for merchandise in December:

	November	December	January
Sales	\$220,000	\$200,000	\$210,000
Budgeted cost of goods sold (65% of sales)	\$143,000	\$130,000	\$136,500
Add desired ending merchandise inventory (50% of next month's cost of goods sold)	65,000	68,250	
Total needs	208,000	198,250	
Less beginning merchandise inventory	71,500	65,000	
Required purchases	\$136,500	\$133,250	

The company pays for its purchases in the month following purchase, so the cash disbursements in December for merchandise would equal the November purchases of \$136,500.

Total cash disbursements in December:

	December
Cash disbursements for merchandise	\$136,500
Other monthly expenses paid in cash	22,500
Total cash disbursements	\$159,000

Cash receipts	\$199,400
Less cash disbursements	159,000
Cash receipts less cash disbursements	\$ 40,400

AACSB: Analytic
 AICPA BB: Critical Thinking
 AICPA FN: Measurement
 Bloom's: Application
 Learning Objective: 08-08 Prepare a cash budget
 Level: Hard

44. The net income for December would be:

- A. \$40,400
- B. \$22,500**
- C. \$47,500
- D. \$28,500

Budgeted Income Statement

Sales (less bad debts of 3% of \$200,000)	\$194,000
Cost of goods sold	130,000
Gross margin	64,000
Other expenses	22,500
Depreciation	19,000
Net income	\$ 22,500

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-09 Prepare a budgeted income statement

Level: Hard

45. The cash balance at the end of December would be:

- A.** \$116,900
- B. \$16,000
- C. \$100,900
- D. \$56,400

Cash Budget

Cash balance, October 31	\$ 16,000
Add: accounts receivable collection	76,000
Add: November credit sales collection ($\$220,000 \times 70\%$)	154,000
Cash available	246,000
Less: accounts payable disbursement	147,000
Less: November expenses disbursement	22,500
Cash balance, December 1	\$ 76,500
Add: Cash collection in December	199,400
Cash available	275,900
Less: December cash disbursements	136,500
Less: December expenses disbursement	22,500
Cash balance, December 31	\$116,900

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-08 Prepare a cash budget

Learning Objective: 08-10 Prepare a budgeted balance sheet

Level: Hard

46. The accounts receivable balance, net of uncollectible accounts, at the end of December would be:

- A. \$82,000
- B. \$113,400
- C. \$60,000
- D.** \$54,000

December accounts receivable balance:

December uncollected ($30\% \times \$200,000$)	\$60,000
Less: December allowance for uncollectibles ($3\% \times \$200,000$)	6,000
December net accounts receivable	\$54,000

AACSB: Analytic
 AICPA BB: Critical Thinking
 AICPA FN: Measurement
 Bloom's: Application
 Learning Objective: 08-10 Prepare a budgeted balance sheet
 Level: Hard

47. Accounts payable at the end of December would be:

- A. \$65,000
- B. \$68,250
- C. \$130,000
- D.** \$133,250

December accounts payable balance:

Unpaid purchases for December sales ($\$200,000 \times 65\% \times 50\%$)	\$ 65,000
Unpaid purchases for January sales ($\$210,000 \times 65\% \times 50\%$)	68,250
December accounts payable	\$133,250

AACSB: Analytic
 AICPA BB: Critical Thinking
 AICPA FN: Measurement
 Bloom's: Application
 Learning Objective: 08-10 Prepare a budgeted balance sheet
 Level: Hard

48. Retained earnings at the end of December would be:

- A. \$132,500
- B. \$155,000
- C. \$196,500
- D. \$183,900**

Budgeted Income Statement

	November	December
Sales	\$220,000	\$200,000
Bad debts expense	6,600	6,000
Cost of goods sold	143,000	130,000
Gross margin	70,400	64,000
Expenses	22,500	22,500
Depreciation	19,000	19,000
Net income	\$ 28,900	\$ 22,500

Retained earnings, October 31	\$132,500
Plus: November net income	28,900
Retained earnings, November 30	161,400
Plus: December net income	22,500
Retained earnings, December 31	\$183,900

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-10 Prepare a budgeted balance sheet

Level: Hard

Brarin Corporation is a small wholesaler of gourmet food products. Data regarding the store's operations follow:

- Sales are budgeted at \$340,000 for November, \$360,000 for December, and \$350,000 for January.
- Collections are expected to be 55% in the month of sale, 44% in the month following the sale, and 1% uncollectible.
- The cost of goods sold is 80% of sales.
- The company would like to maintain ending merchandise inventories equal to 70% of the next month's cost of goods sold. Payment for merchandise is made in the month following the purchase.
- Other monthly expenses to be paid in cash are \$23,100.
- Monthly depreciation is \$21,000.
- Ignore taxes.

Statement of Financial Position	
October 31	
Assets	
Cash	\$ 22,000
Accounts receivable (net of allowance for uncollectible accounts)	77,000
Merchandise inventory	190,400
Property, plant and equipment (net of \$452,000 accumulated depreciation)	<u>934,000</u>
Total assets	<u>\$1,223,400</u>
Liabilities and Stockholders' Equity	
Accounts payable	\$ 281,000
Common stock	620,000
Retained earnings	<u>322,400</u>
Total liabilities and stockholders' equity	<u>\$1,223,400</u>

49. Expected cash collections in December are:

- A. \$360,000
- B. \$149,600
- C. \$198,000
- D. \$347,600**

Cash collections for December:

December credit sales collected in December ($\$360,000 \times 55\%$)	\$198,000
November credit sales collected in December ($\$340,000 \times 44\%$)	149,600
Total cash collections in December	\$347,600

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-02 Prepare a sales budget; including a schedule of expected cash collections

Level: Hard

50. The cost of December merchandise purchases would be:

- A. \$272,000
- B. \$288,000
- C. \$196,000
- D. \$282,400**

December merchandise purchases:

	November	December	January
Sales	\$340,000	\$360,000	\$350,000
Cost of goods sold (80% of sales)	\$272,000	\$288,000	\$280,000
Add desired ending merchandise inventory (70% of next month's COGS)	201,600	196,000	
Total needs	473,600	484,000	
Less beginning merchandise inventory (70% of this month's COGS)	190,400	201,600	
Required purchases	\$283,200	\$282,400	

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-04 Prepare a direct materials budget; including a schedule of expected cash disbursements for purchase of materials

Level: Hard

51. December cash disbursements for merchandise purchases would be:

- A.** \$283,200
- B. \$196,000
- C. \$288,000
- D. \$282,400

	November	December
Sales	\$340,000	\$360,000
Cost of goods sold (80% of sales)	\$272,000	\$288,000
Add desired ending merchandise inventory (70% of next month's COGS)	201,600	
Total needs	473,600	
Less beginning merchandise inventory (70% of this month's COGS)	190,400	
Required purchases	\$283,200	

In December, the company will pay for November's purchases of \$283,200.

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-04 Prepare a direct materials budget; including a schedule of expected cash disbursements for purchase of materials

Level: Hard

52. The difference between cash receipts and cash disbursements in December would be:

- A. \$17,000
- B. \$24,300
- C. \$41,300**
- D. \$65,600

Cash receipts in December:

December credit sales collected in December ($\$360,000 \times 55\%$)	\$198,000
November credit sales collected in December ($\$340,000 \times 44\%$)	149,600
Total cash collections in December	\$347,600

Cash disbursements for purchases of merchandise inventory in December:

	November	December
Sales	\$340,000	\$360,000
Cost of goods sold (80% of sales)	\$272,000	\$288,000
Add desired ending merchandise inventory (70% of next month's COGS)	201,600	
Total needs	473,600	
Less beginning merchandise inventory (70% of this month's COGS)	190,400	
Required purchases	\$283,200	

In December, the company will pay for November's purchases of \$283,200.

Cash receipts	\$347,600
Cash disbursements for purchases of merchandise inventory	283,200
Other monthly expenses paid in cash	23,100
Cash receipts less cash disbursements	\$ 41,300

AACSB: Analytic
 AICPA BB: Critical Thinking
 AICPA FN: Measurement
 Bloom's: Application
 Learning Objective: 08-08 Prepare a cash budget
 Level: Hard

The Kafusi Company has the following budgeted sales:

	April	May	June	July
Credit Sales	\$320,000	\$300,000	\$350,000	\$400,000
Cash Sales	\$70,000	\$80,000	\$90,000	\$70,000

The regular pattern of collection of credit sales is 30% in the month of sale, 60% in the month following the month of sale, and the remainder in the second month following the month of sale. There are no bad debts.

Chapter 08 - Profit Planning

53. The budgeted cash receipts for July would be:

- A. \$400,000
- B. \$430,000**
- C. \$435,000
- D. \$390,000

Cash collections for July:

July cash sales	\$ 70,000
July credit sales collected in July ($\$400,000 \times 30\%$)	120,000
June credit sales collected in July ($\$350,000 \times 60\%$)	210,000
May credit sales collected in July ($\$300,000 \times 10\%$)	30,000
Total cash collections in July	\$430,000

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-02 Prepare a sales budget; including a schedule of expected cash collections

Level: Medium

54. The budgeted accounts receivable balance on May 31 would be:

- A. \$210,000
- B. \$212,000
- C. \$180,000
- D. \$242,000**

May 31 accounts receivable balance:

May uncollected credit sales ($70\% \times \$300,000$)	\$210,000
April uncollected credit sales ($10\% \times \$320,000$)	32,000
May 31 accounts receivable	\$242,000

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-02 Prepare a sales budget; including a schedule of expected cash collections

Level: Medium

Mitchell Company had the following budgeted sales for the last half of last year:

	Cash Sales	Credit Sales
July	\$50,000	\$150,000
August	\$55,000	\$170,000
September	\$45,000	\$130,000
October	\$50,000	\$145,000
November	\$60,000	\$200,000
December	\$80,000	\$350,000

The company is in the process of preparing a cash budget and must determine the expected cash collections by month. To this end, the following information has been assembled:

Collections on credit sales:
60% in month of sale
30% in month following sale
10% in second month following sale

55. Assume that the accounts receivable balance on July 1 was \$75,000. Of this amount, \$60,000 represented uncollected June sales and \$15,000 represented uncollected May sales. Given these data, the total cash collected during July would be:

- A. \$150,000
- B. \$235,000
- C. \$215,000
- D.** \$200,000

Cash collections for July:

June credit sales collected in July ($\$150,000^* \times 30\%$)	\$ 45,000
May credit sales collected in July	15,000
July cash sales	50,000
July credit sales collected in July ($\$150,000 \times 60\%$)	90,000
Total cash collections in July	\$200,000

*Accounts receivables representing June credit sales = \$60,000 = $(30\% + 10\%) \times$ June credit sales

June credit sales = $\$60,000 \div (30\% + 10\%) = \$150,000$

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-02 Prepare a sales budget; including a schedule of expected cash collections

Level: Hard

56. What is the budgeted accounts receivable balance on December 1?

- A. \$80,000
- B. \$140,000
- C. \$94,500**
- D. \$131,300

December 1 accounts receivable balance:

Uncollected November credit sales ($40\% \times \$200,000$)	\$80,000
Uncollected October credit sales ($10\% \times \$145,000$)	14,500
December accounts receivable	\$94,500

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-02 Prepare a sales budget; including a schedule of expected cash collections

Level: Hard

Sartain Corporation is in the process of preparing its annual budget. The following beginning and ending inventory levels are planned for the year.

	Beginning Inventory	Ending Inventory
Finished goods (units)	20,000	70,000
Raw material (grams)	50,000	40,000

Each unit of finished goods requires 2 grams of raw material.

57. If the company plans to sell 670,000 units during the year, the number of units it would have to manufacture during the year would be:

- A. 670,000 units
- B. 720,000 units**
- C. 740,000 units
- D. 620,000 units

Production Budget

Budgeted unit sales	670,000
Add desired ending finished goods inventory	70,000
Total needs	740,000
Less beginning finished goods inventory	20,000
Required production in units	720,000

AACSB: Analytic
 AICPA BB: Critical Thinking
 AICPA FN: Measurement
 Bloom's: Application
 Learning Objective: 08-03 Prepare a production budget
 Level: Easy

58. How much of the raw material should the company purchase during the year?

- A. 1,430,000 grams**
- B. 1,450,000 grams
- C. 1,480,000 grams
- D. 1,440,000 grams

Materials Budget

Required production in units	720,000
Raw materials required per unit (grams)	2
Raw materials required for production	1,440,000
Add desired ending finished goods inventory	40,000
Total raw materials needs	1,480,000
Less beginning finished goods inventory	50,000
Required material purchases in grams	1,430,000

AACSB: Analytic
 AICPA BB: Critical Thinking
 AICPA FN: Measurement
 Bloom's: Application
 Learning Objective: 08-04 Prepare a direct materials budget; including a schedule of expected cash disbursements for purchase of materials
 Level: Medium

LHU Corporation makes and sells a product called Product WZ. Each unit of Product WZ requires 2.5 hours of direct labor at the rate of \$15.00 per direct labor-hour. Management would like you to prepare a Direct Labor Budget for June.

59. The budgeted direct labor cost per unit of Product WZ would be:

- A. \$37.50
- B. \$6.00
- C. \$15.00
- D. \$17.50

Budgeted direct labor cost = 2.5 direct labor-hours per unit × \$15.00 per direct labor-hour
=\$37.50 per unit

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-05 Prepare a direct labor budget

Level: Easy

60. The company plans to sell 38,000 units of Product WZ in June. The finished goods inventories on June 1 and June 30 are budgeted to be 600 and 100 units, respectively.

Budgeted direct labor costs for June would be:

- A. \$562,500
- B. \$1,425,000
- C. \$1,406,250**
- D. \$1,443,750

Direct labor budget

	June
Budgeted unit sales	38,000
Add desired ending finished goods inventory	100
Total needs	38,100
Less beginning finished goods inventory	600
Required production in units	37,500
Direct labor-hours per unit	2.5
Total direct labor-hours needed	93,750
Direct labor cost per hour	\$15.00
Budgeted direct labor costs for June	\$1,406,250

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-03 Prepare a production budget

Level: Medium

Hardy, Inc., has budgeted sales in units for the next five months as follows:

June	8,200 units
July	6,300 units
August	4,700 units
September	3,600 units
October	2,600 units

Past experience has shown that the ending inventory for each month should be equal to 20% of the next month's sales in units. The inventory on May 31 contained 1,640 units. The company needs to prepare a production budget for the next five months.

61. The beginning inventory for September should be:

- A. 940 units
- B. 720 units**
- C. 1,640 units
- D. 520 units

Beginning inventory for September = Ending inventory for August = 20% of September's sales

$$= 20\% \times 3,600 \text{ units} = 720 \text{ units}$$

AACSB: Analytic
AICPA BB: Critical Thinking
AICPA FN: Measurement
Bloom's: Application
Learning Objective: 08-03 Prepare a production budget
Level: Easy

62. The total number of units produced in July should be:

- A. 7,240 units
- B. 6,620 units
- C. 6,300 units
- D. 5,980 units**

Production Budget

	July
Budgeted unit sales	6,300
Add desired ending finished goods inventory	940
Total needs	7,240
Less beginning finished goods inventory	1,260
Required production in units	5,980

AACSB: Analytic
AICPA BB: Critical Thinking
AICPA FN: Measurement
Bloom's: Application
Learning Objective: 08-03 Prepare a production budget
Level: Easy

Young Enterprises has budgeted sales in units for the next five months as follows:

June	4,600 units
July	7,200 units
August	5,400 units
September	6,800 units
October	3,800 units

Past experience has shown that the ending inventory for each month should be equal to 10% of the next month's sales in units. The inventory on May 31 fell short of this goal since it contained only 400 units. The company needs to prepare a Production Budget for the next five months.

63. The beginning inventory in units for September should be:

- A. 460 units
- B. 6,800 units
- C. 540 units
- D. 680 units**

Beginning inventory for September = Ending inventory for August = 10% of September sales
= $10\% \times 6,800 \text{ units} = 680 \text{ units}$

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-03 Prepare a production budget

Level: Easy

Chapter 08 - Profit Planning

64. The total number of units to be produced in July is:

- A. 7,740 units
- B. 7,200 units
- C. 7,020 units**
- D. 7,280 units

Production Budget

Budgeted unit sales	7,200
Add desired ending finished goods inventory	540
Total needs	7,740
Less beginning finished goods inventory	720
Required production in units	7,020

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-03 Prepare a production budget

Level: Medium

65. The desired ending inventory for August is:

- A. 540 units
- B. 680 units**
- C. 720 units
- D. 380 units

Ending inventory for August = 10% of September sales = $10\% \times 6,800 \text{ units} = 680 \text{ units}$

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-03 Prepare a production budget

Level: Easy

Casper Corporation makes and sells a product called a Miniwarp. One Miniwarp requires 3.5 kilograms of the raw material Jurislon. Budgeted production of Miniwarps for the next five months is as follows:

August	20,400 units
September	18,500 units
October	20,300 units
November	18,700 units
December	20,500 units

The company wants to maintain monthly ending inventories of Jurislon equal to 10% of the following month's production needs. On July 31, this requirement was not met since only 6,900 kilograms of Jurislon were on hand. The cost of Jurislon is \$3.00 per kilogram. The company wants to prepare a Direct Materials Purchase Budget for the next five months.

66. The desired ending inventory of Jurislon for the month of September is:

- A. \$5,550
- B. \$21,315**
- C. \$6,090
- D. \$19,425

Ending inventory of Jurislon for September = 10% of October's production needs = $10\% \times 20,300 \text{ units} \times 3.5 \text{ kilograms per unit} = 7,105 \text{ kilograms}$

Cost of ending inventory of Jurilson = $7,105 \text{ kilograms} \times \$3.00 \text{ per kilogram} = \$21,315$

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-04 Prepare a direct materials budget; including a schedule of expected cash disbursements for purchase of materials

Level: Medium

67. The total cost of Jurislon to be purchased in August is:

- A. \$233,625
- B. \$407,700
- C. \$214,200
- D. \$212,925**

	August
Required production in units	20,400
Raw materials required per unit (kilograms)	3.5
Raw materials needed for production	71,400
Add desired ending raw materials inventory (10% × 18,500 units × 3.5 kilograms per unit)	6,475
Total raw materials needs	77,875
Less beginning raw materials inventory	6,900
Required purchases of raw material in units	70,975
Cost per kilogram	\$3.00
Required purchases	\$212,925

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-04 Prepare a direct materials budget; including a schedule of expected cash disbursements for purchase of materials

Level: Medium

Balmforth Products, Inc. makes and sells a single product called a Bik. It takes three yards of Material A to make one Bik. Budgeted production of Biks for the next five months is as follows:

February	14,000 units
March	15,500 units
April	11,900 units
May	12,600 units
June	14,500 units

The company wants to maintain monthly ending inventories of Material A equal to 20% of the following month's production needs. On January 31, this target had not been attained since only 2,000 yards of Material A were on hand. The cost of Material A is \$0.80 per yard. The company wants to prepare a Direct Materials Purchases Budget.

68. The total cost of Material A to be purchased in February is:

- A. \$45,200
- B. \$42,900
- C. \$39,440**
- D. \$34,320

	February
Required production in units of finished goods	14,000
Raw materials required per unit of finished goods	3
Raw materials needed to meet the production schedule	42,000
Add desired ending raw materials inventory (20% × 15,500 units × 3 yards per unit)	9,300
Total raw materials needs	51,300
Less beginning raw materials inventory	2,000
Raw materials to be purchased	49,300
Unit cost of raw materials	\$0.80
Cost of raw materials to be purchased	\$39,440

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-04 Prepare a direct materials budget; including a schedule of expected cash disbursements for purchase of materials

Level: Medium

69. The desired ending inventory of Material A for the month of March is:

- A. 9,300 yards
- B. 7,140 yards**
- C. 3,100 yards
- D. 8,400 yards

Desired ending inventory of Material A for March = $20\% \times 11,900 \text{ units} \times 3 \text{ yards per unit} = 7,140 \text{ yards}$

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-04 Prepare a direct materials budget; including a schedule of expected cash disbursements for purchase of materials

Level: Easy

70. The total needs (i.e., production requirements plus desired ending inventory) of Material A for the month of May are:

- A. 37,800 yards
- B. 45,360 yards
- C. 46,500 yards**
- D. 38,940 yards

	May
Required production in units of finished goods	12,600
Raw materials required per unit of finished goods	3
Raw materials needed to meet the production schedule	37,800
Add desired ending raw materials inventory (20% × 14,500 units × 3 yards per unit)	8,700
Total raw materials needs	46,500

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-04 Prepare a direct materials budget; including a schedule of expected cash disbursements for purchase of materials

Level: Medium

The Yost Company makes and sells a single product, Product A. Each unit of Product A requires 1.2 hours of labor at a labor rate of \$8.40 per hour. Yost Company needs to prepare a Direct Labor Budget for the second quarter.

71. If the budgeted direct labor cost for May is \$161,280, then the budgeted production of Product A for May is:

- A.** 16,000 units
- B. 19,200 units
- C. 23,040 units
- D. 16,800 units

Budgeted direct labor cost = Budgeted production \times 1.2 direct labor-hours per unit \times \$8.40 per direct labor-hour

\$161,280 = Budgeted production \times 1.2 direct labor-hours per unit \times \$8.40 per direct labor-hour

\$161,280 = Budgeted production \times \$10.08 per unit

Budgeted production = \$161,280 \div \$10.08 per unit = 16,000 units

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-05 Prepare a direct labor budget

Level: Easy

72. The budgeted direct labor cost per unit of Product A is:

- A. \$8.40
- B. \$7.00
- C.** \$10.08
- D. \$9.60

Direct labor cost per unit = 1.2 direct labor-hours per unit \times \$8.40 per direct labor-hour = \$10.08 per unit

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-05 Prepare a direct labor budget

Level: Easy

73. The company has budgeted to produce 20,000 units of Product A in June. The finished goods inventories on June 1 and June 30 were budgeted at 400 and 600 units, respectively.

Budgeted direct labor cost for June is:

- A. \$207,648
- B. \$168,000
- C. \$199,584
- D. \$201,600**

Budgeted direct labor cost = Budgeted production \times 1.2 direct labor-hours per unit \times \$8.40 per direct labor-hour = 20,000 units \times 1.2 direct labor-hours per unit \times \$8.40 per direct labor-hour
= 20,000 units \times \$10.08 per unit = \$201,600

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-05 Prepare a direct labor budget

Level: Medium

Davol Corporation is preparing its Manufacturing Overhead Budget for the fourth quarter of the year. The budgeted variable manufacturing overhead rate is \$6.80 per direct labor-hour; the budgeted fixed manufacturing overhead is \$72,000 per month, of which \$20,000 is factory depreciation.

74. If the budgeted direct labor time for October is 5,000 hours, then the total budgeted manufacturing overhead for October is:

- A. \$52,000
- B. \$106,000**
- C. \$54,000
- D. \$86,000

Manufacturing Overhead Budget

	October
Budgeted direct labor-hours	5,000
Variable manufacturing overhead rate	\$6.80
Variable manufacturing overhead	\$ 34,000
Fixed manufacturing overhead	72,000
Total manufacturing overhead	\$106,000

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-06 Prepare a manufacturing overhead budget

Level: Easy

75. If the budgeted direct labor time for November is 5,000 hours, then the total budgeted cash disbursements for November must be:

- A. \$54,000
- B. \$52,000
- C. \$106,000
- D. \$86,000**

	November
Budgeted direct labor-hours	5,000
Variable manufacturing overhead rate	\$6.80
Variable manufacturing overhead	\$ 34,000
Fixed manufacturing overhead	72,000
Total manufacturing overhead	106,000
Less depreciation	20,000
Cash disbursement for manufacturing overhead	<u>\$86,000</u>

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-06 Prepare a manufacturing overhead budget

Level: Medium

76. If the budgeted direct labor time for December is 4,000 hours, then the predetermined manufacturing overhead per direct labor-hour for December would be:

- A. \$6.80
- B. \$11.80
- C. \$19.80
- D. \$24.80**

	December
Budgeted direct labor-hours	4,000
Variable manufacturing overhead rate	\$6.80
Variable manufacturing overhead	\$27,200
Fixed manufacturing overhead	72,000
Total manufacturing overhead (a)	\$99,200
Budgeted direct labor-hours (b)	4,000
Predetermined overhead rate for the month (a) ÷ (b)	\$24.80

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-06 Prepare a manufacturing overhead budget

Level: Medium

The manufacturing overhead budget at Mahapatra Corporation is based on budgeted direct labor-hours. The direct labor budget indicates that 7,900 direct labor-hours will be required in May. The variable overhead rate is \$9.50 per direct labor-hour. The company's budgeted fixed manufacturing overhead is \$112,970 per month, which includes depreciation of \$18,170. All other fixed manufacturing overhead costs represent current cash flows.

77. The company recomputes its predetermined overhead rate every month. The predetermined overhead rate for May should be:

- A. \$14.30
- B. \$21.50
- C. \$9.50
- D.** \$23.80

	May
Budgeted direct labor-hours	7,900
Variable manufacturing overhead rate	\$9.50
Variable manufacturing overhead	\$ 75,050
Fixed manufacturing overhead	112,970
Total manufacturing overhead (a)	\$188,020
Budgeted direct labor-hours (b)	7,900
Predetermined overhead rate for the month (a) ÷ (b)	\$23.80

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-06 Prepare a manufacturing overhead budget

Level: Easy

78. The May cash disbursements for manufacturing overhead on the manufacturing overhead budget should be:

- A. \$75,050
- B. \$188,020
- C. \$94,800
- D.** \$169,850

Manufacturing Overhead Budget

	May
Budgeted direct labor-hours	7,900
Variable manufacturing overhead rate	\$9.50
Variable manufacturing overhead	\$ 75,050
Fixed manufacturing overhead	112,970
Total manufacturing overhead	188,020
Less depreciation	18,170
Cash disbursement for manufacturing overhead	\$169,850

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-06 Prepare a manufacturing overhead budget

Level: Easy

Salge Inc. bases its manufacturing overhead budget on budgeted direct labor- hours. The variable overhead rate is \$8.10 per direct labor-hour. The company's budgeted fixed manufacturing overhead is \$74,730 per month, which includes depreciation of \$20,670. All other fixed manufacturing overhead costs represent current cash flows. The direct labor budget indicates that 5,300 direct labor-hours will be required in September.

79. The September cash disbursements for manufacturing overhead on the manufacturing overhead budget should be:

- A. \$42,930
- B. \$54,060
- C. \$96,990**
- D. \$117,660

Manufacturing Overhead Budget

	September
Budgeted direct labor-hours	5,300
Variable manufacturing overhead rate	\$8.10
Variable manufacturing overhead	\$42,930
Fixed manufacturing overhead	74,730
Total manufacturing overhead	117,660
Less depreciation	20,670
Cash disbursement for manufacturing overhead	\$96,990

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-06 Prepare a manufacturing overhead budget

Level: Easy

80. The company recomputes its predetermined overhead rate every month. The predetermined overhead rate for September should be:

- A. \$18.30
- B. \$14.10
- C. \$8.10
- D. \$22.20**

	September
Budgeted direct labor-hours	5,300
Variable manufacturing overhead rate	\$8.10
Variable manufacturing overhead	\$ 42,930
Fixed manufacturing overhead	74,730
Total manufacturing overhead (a)	\$117,660
Budgeted direct labor-hours (b)	5,300
Predetermined overhead rate for the month (a) ÷ (b)	\$22.20

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-06 Prepare a manufacturing overhead budget

Level: Easy

Porl Corporation makes and sells a single product called a Yute. The company is in the process of preparing its Selling and Administrative Expense Budget for the last quarter of the year. The following budget data are available:

	Variable Cost Per Yute Sold	Monthly Fixed Cost
Sales commissions	\$1.50	
Shipping	\$2.30	
Advertising	\$4.50	\$36,000
Executive salaries		\$146,000
Depreciation on office equipment		\$13,000
Other	\$0.60	\$36,000

All of these expenses (except depreciation) are paid in cash in the month they are incurred.

81. If the company has budgeted to sell 22,000 Yutes in November, then the total budgeted selling and administrative expenses for November would be:

- A.** \$426,800
- B. \$231,000
- C. \$413,800
- D. \$195,800

$$\begin{aligned}
 \text{Total selling and administrative expenses} &= \text{Fixed selling and administrative expenses} + \\
 &(\text{Variable selling and administrative expenses per unit} \times \text{Units sold}) \\
 &= \$231,000 + (\$8.90 \text{ per unit} \times 22,000 \text{ units}) \\
 &= \$231,000 + \$195,800 \\
 &= \$426,800
 \end{aligned}$$

AACSB: Analytic
 AICPA BB: Critical Thinking
 AICPA FN: Measurement
 Bloom's: Application
 Learning Objective: 08-07 Prepare a selling and administrative expense budget
 Level: Medium

82. If the company has budgeted to sell 19,000 Yutes in December, then the budgeted total cash disbursements for selling and administrative expenses for December would be:

- A.** \$387,100
- B. \$231,000
- C. \$169,100
- D. \$400,100

Selling and administrative expenses budget:

	December
Budgeted unit sales	19,000
Variable selling and administrative expenses per unit	\$8.90
Variable selling and administrative	\$169,100
Fixed selling and administrative	231,000
Total selling and administrative	400,100
Less depreciation	13,000
Cash disbursement for selling and administrative	\$387,100

AACSB: Analytic
 AICPA BB: Critical Thinking
 AICPA FN: Measurement
 Bloom's: Application
 Learning Objective: 08-07 Prepare a selling and administrative expense budget
 Level: Medium

83. If the total budgeted selling and administrative expense for October is \$409,000, then how many Yutes does the company plan to sell in October?

- A. 19,700 units
- B. 20,000 units**
- C. 20,500 units
- D. 20,200 units

Total selling and administrative expenses = Fixed selling and administrative expenses + (Variable selling and administrative expenses per unit × Units sold)

$$\$409,000 = \$231,000 + (\$8.90 \text{ per unit} \times \text{Units sold})$$

$$\$8.90 \text{ per unit} \times \text{Units sold} = \$409,000 - \$231,000$$

$$\$8.90 \text{ per unit} \times \text{Units sold} = \$178,000$$

$$\text{Units sold} = \$178,000 \div \$8.90 \text{ per unit} = 20,000 \text{ units}$$

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-07 Prepare a selling and administrative expense budget

Level: Hard

The Gomez Company, a merchandising firm, has budgeted its activity for December according to the following information:

- Sales at \$500,000, all for cash.
- Merchandise Inventory on November 30 was \$250,000.
- The cash balance at December 1 was \$20,000.
- Selling and administrative expenses are budgeted at \$50,000 for December and are paid for in cash.
- Budgeted depreciation for December is \$30,000.
- The planned merchandise inventory on December 31 is \$260,000.
- The cost of goods sold represents 75% of the selling price.
- All purchases are paid for in cash.

Chapter 08 - Profit Planning

84. The budgeted cash receipts for December are:

- A. \$125,000
- B. \$375,000
- C. \$530,000
- D. \$500,000**

Sales were all for cash and were \$500,000.

AACSB: Analytic
AICPA BB: Critical Thinking
AICPA FN: Measurement
Bloom's: Application
Learning Objective: 08-08 Prepare a cash budget
Level: Easy

85. The budgeted cash disbursements for December are:

- A. \$435,000**
- B. \$385,000
- C. \$425,000
- D. \$465,000

December cash disbursements:

Cost of goods sold ($75\% \times \$500,000$)	\$375,000
Selling and administrative expenses	50,000
Increase in merchandise inventory	10,000
Total cash collections in December	\$435,000

AACSB: Analytic
AICPA BB: Critical Thinking
AICPA FN: Measurement
Bloom's: Application
Learning Objective: 08-08 Prepare a cash budget
Level: Medium

86. The budgeted net income for December is:

- A. \$75,000
- B. \$45,000**
- C. \$125,000
- D. \$65,000

Budgeted Income Statement

Sales	\$500,000
Cost of goods sold (75% × \$500,000)	375,000
Gross margin	125,000
Selling and administrative expense	50,000
Depreciation	30,000
Net income	\$ 45,000

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-09 Prepare a budgeted income statement

Level: Medium

Dengel Inc. is working on its cash budget for November. The budgeted beginning cash balance is \$24,000. Budgeted cash receipts total \$177,000 and budgeted cash disbursements total \$167,000. The desired ending cash balance is \$50,000.

87. The excess (deficiency) of cash available over disbursements for November will be:

- A.** \$34,000
- B. \$201,000
- C. \$10,000
- D. \$14,000

Cash Budget

Cash balance, beginning	\$ 24,000
Add cash receipts	177,000
Total cash available	201,000
Less cash disbursements	167,000
Excess (deficiency) of cash available over disbursements	\$ 34,000

AACSB: Analytic
 AICPA BB: Critical Thinking
 AICPA FN: Measurement
 Bloom's: Application
 Learning Objective: 08-08 Prepare a cash budget
 Level: Easy

88. To attain its desired ending cash balance for November, the company needs to borrow:

- A. \$0
- B.** \$16,000
- C. \$50,000
- D. \$84,000

Cash balance, beginning	\$ 24,000
Add cash receipts	177,000
Total cash available	201,000
Less cash disbursements	167,000
Excess (deficiency) of cash available over disbursements	34,000
Financing	16,000
Cash balance, ending	\$50,000

AACSB: Analytic
 AICPA BB: Critical Thinking
 AICPA FN: Measurement
 Bloom's: Application
 Learning Objective: 08-08 Prepare a cash budget
 Level: Easy

Deshaies Corporation is preparing its cash budget for November. The budgeted beginning cash balance is \$10,000. Budgeted cash receipts total \$100,000 and budgeted cash disbursements total \$104,000. The desired ending cash balance is \$30,000.

89. The excess (deficiency) of cash available over disbursements for November is:

- A. \$110,000
- B. \$6,000**
- C. (\$4,000)
- D. \$14,000

Cash Budget

Cash balance, beginning	\$ 10,000
Add cash receipts	100,000
Total cash available	110,000
Less cash disbursements	104,000
Excess (deficiency) of cash available over disbursements	\$ 6,000

AACSB: Analytic
AICPA BB: Critical Thinking
AICPA FN: Measurement
Bloom's: Application
Learning Objective: 08-08 Prepare a cash budget
Level: Easy

Chapter 08 - Profit Planning

90. To attain its desired ending cash balance for November, the company should borrow:

- A. \$36,000
- B. \$30,000
- C. \$24,000**
- D. \$0

Cash balance, beginning	\$ 10,000
Add cash receipts	100,000
Total cash available	110,000
Less cash disbursements	104,000
Excess (deficiency) of cash available over disbursements	6,000
Financing (plug figure)	24,000
Cash balance, ending	\$30,000

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-08 Prepare a cash budget

Level: Easy

Carpon Lumber sells lumber and general building supplies to building contractors in a medium-sized town in Montana. Data regarding the store's operations follow:

- Sales are budgeted at \$340,000 for November, \$350,000 for December, and \$370,000 for January.
- Collections are expected to be 55% in the month of sale, 44% in the month following the sale, and 1% uncollectible.
- The cost of goods sold is 75% of sales.
- The company desires to have an ending merchandise inventory equal to 60% of the next month's cost of goods sold. Payment for merchandise is made in the month following the purchase.
- Other monthly expenses to be paid in cash are \$21,100.
- Monthly depreciation is \$19,000.
- Ignore taxes.

Statement of Financial Position October 31	
Assets	
Cash	\$ 13,000
Accounts receivable (net of allowance for uncollectible accounts)	82,000
Inventory	153,000
Property, plant and equipment (net of \$598,000 accumulated depreciation)	1,138,000
Total assets	<u>\$1,386,000</u>
Liabilities and Stockholders' Equity	
Accounts payable	\$ 257,000
Common stock	600,000
Retained earnings	529,000
Total liabilities and stockholders' equity	<u>\$1,386,000</u>

Chapter 08 - Profit Planning

91. The net income for December would be:

- A. \$66,400
- B. \$43,900**
- C. \$47,400
- D. \$61,500

Sales	\$350,000
Cost of goods sold (75% of sales)	262,500
Gross margin	87,500
Other monthly expenses	21,100
Depreciation	19,000
Bad debt expense (1% of sales)	3,500
Net income	\$ 43,900

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-09 Prepare a budgeted income statement

Level: Hard

92. The cash balance at the end of December would be:

- A. \$13,000
- B. \$52,400
- C. \$65,400**
- D. \$74,500

Cash Budget

Cash balance, November 1	\$ 13,000
Add: accounts receivable collection	82,000
Add: November credit sales collections ($\$340,000 \times 55\%$)	187,000
Cash available	282,000
Less: accounts payable disbursement	257,000
Less: November expenses disbursement	21,100
Cash balance, December 1	3,900
Add: November credit sales collections ($\$340,000 \times 44\%$)	149,600
Add: December credit sales collections ($\$350,000 \times 55\%$)	192,500
Cash available	346,000
Less: Cash disbursements for November purchases for December ($60\% \times 75\% \times \$350,000$)	157,500
Less: Cash disbursements for November purchases for November ($40\% \times 75\% \times \$340,000$)	102,000
Less: December expenses disbursement	21,100
Cash balance, end of December	\$ 65,400

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-10 Prepare a budgeted balance sheet

Level: Hard

93. The accounts receivable balance, net of uncollectible accounts, at the end of December would be:

- A. \$154,000
- B. \$157,500
- C. \$85,500
- D. \$303,600

December accounts receivable balance = 44% of December sales = $44\% \times \$350,000 = \$154,000$

AACSB: Analytic
AICPA BB: Critical Thinking
AICPA FN: Measurement
Bloom's: Application
Learning Objective: 08-10 Prepare a budgeted balance sheet
Level: Hard

94. Accounts payable at the end of December would be:

- A. \$271,500
- B. \$105,000
- C. \$166,500
- D. \$262,500

	December	January
	\$350,000	\$370,000
Budgeted cost of goods sold (75% of sales)	\$262,500	\$277,500
Add desired ending merchandise inventory (60% of next month's COGS)	166,500	
Total needs	429,000	
Less beginning merchandise inventory (60% of current month's COGS)	157,500	
Required purchases	\$271,500	

Since purchases are paid in the month following purchase, the accounts payable at the end of December should be \$271,500.

AACSB: Analytic
AICPA BB: Critical Thinking
AICPA FN: Measurement
Bloom's: Application
Learning Objective: 08-10 Prepare a budgeted balance sheet
Level: Hard

95. Retained earnings at the end of December would be:

- A. \$572,900
- B. \$614,400**
- C. \$621,300
- D. \$529,000

Budgeted Income Statement

	November	December
Sales	\$340,000	\$350,000
Bad debts expense	3,400	3,500
Cost of Goods Sold	255,000	262,500
Gross Margin	81,600	84,000
Other monthly expenses	21,100	21,100
Depreciation	19,000	19,000
Net income	\$ 41,500	\$ 43,900

Beginning balance, retained earnings	\$529,000
November net income	41,500
December net income	43,900
Ending balance, retained earnings	\$614,400

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-10 Prepare a budgeted balance sheet

Level: Hard

Essay Questions

96. Randall Company is a merchandising company that sells a single product. The company's inventories, production, and sales in units for the next three months have been forecasted as follows:

	October	November	December
Beginning inventory	10,000	10,000	10,000
Merchandise purchases	60,000	70,000	35,000
Sales	60,000	70,000	40,000
Ending inventory	10,000	10,000	5,000

Units are sold for \$12 each. One fourth of all sales are paid for in the month of sale and the balance are paid for in the following month. Accounts receivable at September 30 totaled \$450,000.

Merchandise is purchased for \$7 per unit. Half of the purchases are paid for in the month of the purchase and the remainder are paid for in the month following purchase. Selling and administrative expenses are expected to total \$120,000 each month. One half of these expenses will be paid in the month in which they are incurred and the balance will be paid in the following month. There is no depreciation. Accounts payable at September 30 totaled \$290,000.

Cash at September 30 totaled \$80,000. A payment of \$300,000 for purchase of equipment is scheduled for November, and a dividend of \$200,000 is to be paid in December.

Required:

- Prepare a schedule of expected cash collections for each of the months of October, November, and December.
- Prepare a schedule showing expected cash disbursements for merchandise purchases and selling and administrative expenses for each of the months October, November, and December.
- Prepare a cash budget for each of the months October, November, and December. There is no minimum required ending cash balance.

Chapter 08 - Profit Planning

a.		October	November	December
	Sales (at \$12 per unit)	\$720,000	\$840,000	\$480,000
	September accounts receivable	\$450,000		
	October sales	180,000	\$540,000	
	November sales		210,000	\$630,000
	December sales			120,000
	Total cash collections	\$630,000	\$750,000	\$750,000

b.		October	November	December
	Merchandise purchases at \$7 per unit	\$420,000	\$490,000	\$245,000
	Selling and administrative expenses	120,000	120,000	120,000
	Total incurred	\$540,000	\$610,000	\$365,000
	Disbursements, previous month	\$290,000	\$270,000	\$305,000
	Disbursements, current month	270,000	305,000	182,500
	Total	\$560,000	\$575,000	\$487,500

c.		October	November	December
	Beginning cash balance	\$80,000	\$150,000	\$25,000
	Add cash receipts	630,000	750,000	750,000
	Total cash available	710,000	900,000	775,000
	Disbursements:			
	Accounts payable	560,000	575,000	487,500
	Payment for equipment		300,000	
	Payment of dividend			200,000
	Total disbursements	560,000	875,000	687,500
	Ending cash balance	\$150,000	\$25,000	\$87,500

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-02 Prepare a sales budget; including a schedule of expected cash collections

Learning Objective: 08-03 Prepare a production budget

Learning Objective: 08-07 Prepare a selling and administrative expense budget

Learning Objective: 08-08 Prepare a cash budget

Level: Medium

97. Welnor Industrial Gas Corporation supplies acetylene and other compressed gases to industry. Data regarding the store's operations follow:

- Sales are budgeted at \$320,000 for November, \$340,000 for December, and \$330,000 for January.
- Collections are expected to be 75% in the month of sale, 20% in the month following the sale, and 5% uncollectible.
- The cost of goods sold is 65% of sales.
- The company desires ending merchandise inventory to equal 80% of the following month's cost of goods sold. Payment for merchandise is made in the month following the purchase.
- Other monthly expenses to be paid in cash are \$21,000.
- Monthly depreciation is \$16,000.
- Ignore taxes.

Statement of Financial Position	
October 31	
Assets	
Cash	\$22,000
Accounts receivable (net of allowance for uncollectible accounts)	82,000
Merchandise inventory	166,400
Property, plant and equipment (net of \$658,000 accumulated depreciation)	1,170,000
Total assets	\$1,440,400
Liabilities and Stockholders' Equity	
Accounts payable	\$199,000
Common stock	840,000
Retained earnings	401,400
Total liabilities and stockholders' equity	\$1,440,400

Required:

- a. Prepare a Schedule of Expected Cash Collections for November and December.
- b. Prepare a Merchandise Purchases Budget for November and December.
- c. Prepare Cash Budgets for November and December.
- d. Prepare Budgeted Income Statements for November and December.
- e. Prepare a Budgeted Balance Sheet for the end of December.

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a.		November	December
	Sales	\$320,000	\$340,000
	Schedule of Expected Cash Collections		
	Accounts receivable	\$82,000	
	November sales	240,000	\$64,000
	December sales		255,000
	Total cash collections	\$322,000	\$319,000

b.		November	December
	Budgeted cost of goods sold	\$208,000	\$221,000
	Add desired ending merchandising inventory	176,800	171,600
	Total needs	384,800	392,600
	Less beginning merchandise inventory	166,400	176,800
	Required purchases	\$218,400	\$215,800

c.		November	December
	Cash disbursements for merchandise	\$199,000	\$218,400
	Other monthly cash expenses	21,000	21,000
	Total cash disbursements	\$220,000	\$239,400
	Cash balance, beginning	\$ 22,000	\$124,000
	Add cash receipts	322,000	319,000
	Total cash available	344,000	443,000
	Less cash disbursements:	220,000	239,400
	Excess (deficiency) of cash available over disbursements	124,000	203,600
	Financing	0	0
	Cash balance, ending	\$124,000	\$203,600

d.		November	December
	Sales	\$320,000	\$340,000
	Bad debt expense	16,000	17,000
	Cost of goods sold	208,000	221,000
	Gross margin	96,000	102,000
	Other monthly expenses	21,000	21,000
	Depreciation	16,000	16,000
	Net operating income	\$59,000	\$65,000

Chapter 08 - Profit Planning

e. Budgeted Balance Sheet	
December 31	
Assets	
Cash	\$203,600
Accounts receivable (net of allowance for uncollectible accounts)	68,000
Inventory	171,600
Property, plant and equipment (net of \$690,000 accumulated depreciation)	1,138,000
Total assets	\$1,581,200
Liabilities and Stockholders' Equity	
Accounts payable	\$215,800
Common stock	840,000
Retained earnings	525,400
Total liabilities and stockholders' equity	\$1,581,200

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-02 Prepare a sales budget; including a schedule of expected cash collections

Learning Objective: 08-03 Prepare a production budget

Learning Objective: 08-08 Prepare a cash budget

Learning Objective: 08-09 Prepare a budgeted income statement

Learning Objective: 08-10 Prepare a budgeted balance sheet

Level: Hard

98. Capp Corporation is a wholesaler of industrial goods. Data regarding the store's operations follow:

- Sales are budgeted at \$350,000 for November, \$360,000 for December, and \$340,000 for January.
- Collections are expected to be 60% in the month of sale, 39% in the month following the sale, and 1% uncollectible.
- The cost of goods sold is 75% of sales.
- The company desires an ending merchandise inventory equal to 40% of the following month's cost of goods sold. Payment for merchandise is made in the month following the purchase.
- The November beginning balance in the accounts receivable account is \$70,000.
- The November beginning balance in the accounts payable account is \$257,000.

Required:

- Prepare a Schedule of Expected Cash Collections for November and December.
- Prepare a Merchandise Purchases Budget for November and December.

a.		November	December
	Sales	\$350,000	\$360,000
	Schedule of Expected Cash Collections		
	Accounts receivable	\$70,000	
	November sales	210,000	\$136,500
	December sales		216,000
	Total cash collections	\$280,000	\$352,500
b.		November	December
	Cost of goods sold	\$262,500	\$270,000
	Add desired ending merchandise inventory	108,000	102,000
	Total needs	370,500	372,000
	Less beginning merchandise inventory	105,000	108,000
	Required purchases	\$265,500	\$264,000

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-02 Prepare a sales budget; including a schedule of expected cash collections

Learning Objective: 08-03 Prepare a production budget

Level: Medium

99. Edwards Company has projected sales and production in units for the second quarter of the year as follows:

	April	May	June
Sales	30,000	20,000	25,000
Production	25,000	25,000	30,000

Required:

a. Cash production costs are budgeted at \$6 per unit produced. Of these production costs, 40% are paid in the month in which they are incurred and the balance in the following month. Selling and administrative expenses (all paid in cash) amount to \$60,000 per month. The accounts payable balance on March 31 totals \$96,000, all of which will be paid in April. Prepare a schedule for each month showing budgeted cash disbursements for Edwards Company.

b. Assume that all units will be sold on account for \$15 each. Cash collections from sales are budgeted at 60% in the month of sale, 30% in the month following the month of sale and the remaining 10% in the second month following the month of sale. Accounts receivable on March 31 totaled \$255,000 (\$45,000 from February's sales and the remainder from March.) Prepare a schedule for each month showing budgeted cash receipts for Edwards Company.

a.		April	May	June
	Production units	25,000	25,000	30,000
	Cash required per unit	× \$6	× \$6	× \$6
	Production costs	\$150,000	\$150,000	\$180,000
	Cash disbursements:			
	Production this month (40%)	\$60,000	\$60,000	\$72,000
	Production prior month (60%)	96,000*	90,000	90,000
	Selling and administration	60,000	60,000	60,000
	Total disbursements	\$216,000	\$210,000	\$222,000
	*Beginning balance of accounts payable.			
b.		April	May	June
	Budgeted unit sales	30,000	20,000	25,000
	Selling price per unit	× \$15	× \$15	× \$15
	Total sales	\$450,000	\$300,000	\$375,000
	Cash receipts:			
	February sales	\$45,000		
	March sales	157,500	\$52,500	
	April sales	270,000	135,000	\$45,000
	May sales		180,000	90,000
	June sales			225,000
	Total receipts	\$472,500	\$367,500	\$360,000

Chapter 08 - Profit Planning

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-02 Prepare a sales budget; including a schedule of expected cash collections

Learning Objective: 08-08 Prepare a cash budget

Level: Medium

100. Kindschuh Corporation is working on its direct labor budget for the next two months. Each unit of output requires 0.07 direct labor-hours. The direct labor rate is \$8.50 per direct labor-hour. The production budget calls for producing 4,800 units in June and 5,300 units in July.

Required:

Construct the direct labor budget for the next two months, assuming that the direct labor work force is fully adjusted to the total direct labor-hours needed each month.

	June	July
Required production in units	4,800	5,300
Direct labor-hours per unit	0.07	0.07
Total direct labor-hours needed	336	371
Direct labor cost per hour	\$8.50	\$8.50
Total direct labor cost	\$2,856.00	\$3,153.50

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-05 Prepare a direct labor budget

Level: Easy

101. Capati Corporation is working on its direct labor budget for the next two months. Each unit of output requires 0.41 direct labor-hours. The direct labor rate is \$8.50 per direct labor-hour. The production budget calls for producing 2,300 units in August and 2,200 units in September. The company guarantees its direct labor workers a 40-hour paid work week. With the number of workers currently employed, that means that the company is committed to paying its direct labor work force for at least 960 hours in total each month even if there is not enough work to keep them busy.

Required:

Construct the direct labor budget for the next two months.

	August	September
Required production in units	2,300	2,200
Direct labor-hours per unit	0.41	0.41
Total direct labor-hours needed	943	902
Total direct labor-hours paid	960	960
Direct labor cost per hour	\$8.50	\$8.50
Total direct labor cost	\$8,160	\$8,160

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-05 Prepare a direct labor budget

Level: Medium

102. Mccoo Inc. bases its manufacturing overhead budget on budgeted direct labor-hours. The variable overhead rate is \$1.30 per direct labor-hour. The company's budgeted fixed manufacturing overhead is \$98,900 per month, which includes depreciation of \$19,780. All other fixed manufacturing overhead costs represent current cash flows. The September direct labor budget indicates that 8,600 direct labor-hours will be required in that month.

Required:

- Determine the cash disbursement for manufacturing overhead for September.
- Determine the predetermined overhead rate for September.

a.		September
	Budgeted direct labor-hours	8,600
	Variable manufacturing overhead rate	\$1.30
	Variable manufacturing overhead	\$11,180
	Fixed manufacturing overhead	98,900
	Total manufacturing overhead	110,080
	Less depreciation	19,780
	Cash disbursement for manufacturing overhead	\$90,300

b.	Total manufacturing overhead (a)	\$110,080
	Budgeted direct labor-hours (b)	8,600
	Predetermined overhead rate for the month (a) ÷ (b)	\$12.80

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-06 Prepare a manufacturing overhead budget

Level: Easy

103. The manufacturing overhead budget of Lewison Corporation is based on budgeted direct labor-hours. The June direct labor budget indicates that 5,800 direct labor-hours will be required in that month. The variable overhead rate is \$7.70 per direct labor-hour. The company's budgeted fixed manufacturing overhead is \$111,360 per month, which includes depreciation of \$17,400. All other fixed manufacturing overhead costs represent current cash flows.

Required:

- Determine the cash disbursement for manufacturing overhead for June. Show your work!
- Determine the predetermined overhead rate for June. Show your work!

a. June

Budgeted direct labor-hours	5,800
Variable manufacturing overhead rate	\$7.70
Variable manufacturing overhead	\$44,660
Fixed manufacturing overhead	111,360
Total manufacturing overhead	156,020
Less depreciation	17,400
Cash disbursement for manufacturing overhead	\$138,620

b.

Total manufacturing overhead (a)	\$156,020
Budgeted direct labor-hours (b)	5,800
Predetermined overhead rate for the month (a)/(b)	\$26.90

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-06 Prepare a manufacturing overhead budget

Level: Easy

104. Lahay Inc. bases its selling and administrative expense budget on the number of units sold. The variable selling and administrative expense is \$4.30 per unit. The budgeted fixed selling and administrative expense is \$30,240 per month, which includes depreciation of \$3,510. The remainder of the fixed selling and administrative expense represents current cash flows. The sales budget shows 2,700 units are planned to be sold in April.

Required:

Prepare the selling and administrative expense budget for April.

	April
Budgeted unit sales	2,700
Variable selling and administrative expense per unit	\$4.30
Variable selling and administrative expense	\$11,610
Fixed selling and administrative expense	30,240
Total selling and administrative expense	41,850
Less depreciation	3,510
Cash disbursements for selling and administrative expenses	\$38,340

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-07 Prepare a selling and administrative expense budget

Level: Easy

105. The selling and administrative expense budget of Fenley Corporation is based on the number of units sold, which are budgeted to be 2,500 units in January. The variable selling and administrative expense is \$4.40 per unit. The budgeted fixed selling and administrative expense is \$35,750 per month, which includes depreciation of \$4,000. The remainder of the fixed selling and administrative expense represents current cash flows.

Required:

Prepare the selling and administrative expense budget for January.

	January
Budgeted unit sales	2,500
Variable selling and administrative expense per unit	\$4.40
Variable selling and administrative expense	\$11,000
Fixed selling and administrative expense	35,750
Total selling and administrative expense	46,750
Less depreciation	4,000
Cash disbursements for selling and administrative expenses	<u>\$42,750</u>

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-07 Prepare a selling and administrative expense budget

Level: Easy

106. Enciso Corporation is preparing its cash budget for November. The budgeted beginning cash balance is \$31,000. Budgeted cash receipts total \$135,000 and budgeted cash disbursements total \$141,000. The desired ending cash balance is \$50,000. The company can borrow up to \$100,000 at any time from a local bank, with interest not due until the following month.

Required:

Prepare the company's cash budget for November in good form.

Cash balance, beginning	\$31,000
Add cash receipts	135,000
Total cash available	166,000
Less cash disbursements	141,000
Excess (deficiency) of cash available over disbursements	25,000
Borrowings	25,000
Cash balance, ending	\$50,000

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-08 Prepare a cash budget

Level: Easy

Chapter 08 - Profit Planning

107. Wehr Inc. is preparing its cash budget for April. The budgeted beginning cash balance is \$19,000. Budgeted cash receipts total \$105,000 and budgeted cash disbursements total \$98,000. The desired ending cash balance is \$50,000. The company can borrow up to \$120,000 at any time from a local bank, with interest not due until the following month.

Required:

Prepare the company's cash budget for April in good form. Make sure to indicate what borrowing, if any, would be needed to attain the desired ending cash balance.

Cash balance, beginning	\$19,000
Add cash receipts	105,000
Total cash available	124,000
Less cash disbursements	98,000
Excess (deficiency) of cash available over disbursements	26,000
Borrowings	24,000
Cash balance, ending	\$50,000

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Bloom's: Application

Learning Objective: 08-08 Prepare a cash budget

Level: Easy