

**Chapter 6 Master Budget and Responsibility Accounting**

6.1 Distinguish the long-term from the short-term benefits of budgets (pro forma financial statements).

1) A budget is a quantitative expression for a set time period of a proposed future plan of action by management.

Answer: TRUE

Diff: 1 Type: TF

Skill: Remember

Objective: LO 6-1

2) The master budget summarizes all the financial and nonfinancial plans into a single document.

Answer: TRUE

Diff: 1 Type: TF

Skill: Remember

Objective: LO 6-1

3) The master budget embraces the impact of both operating decisions and financing decisions as related to acquisitions and uses of scarce resources.

Answer: TRUE

Diff: 1 Type: TF

Skill: Understand

Objective: LO 6-1

4) The budget constraint describes only financial limitations that are within the company's control.

Answer: FALSE

Explanation: The budget constraints describe the combination of limitations on nonfinancial and financial resources within a company's management control.

Diff: 1 Type: TF

Skill: Remember

Objective: LO 6-1

5) Budgeting is done in place of "strategic analysis."

Answer: FALSE

Diff: 1 Type: TF

Skill: Understand

Objective: LO 6-1

6) Management at all levels should understand and support the budget and all aspects of the management control system.

Answer: TRUE

Diff: 1 Type: TF

Skill: Understand

Objective: LO 6-1

7) Budgeted financial statements are also referred to as pro forma statements.

Answer: TRUE

Diff: 1 Type: TF

Skill: Remember

Objective: LO 6-1

8) Budgets can play both planning and control roles for management.

Answer: TRUE

Diff: 1 Type: TF

Skill: Remember

Objective: LO 6-1

9) Benchmarks encourage the setting of stretch goals.

Answer: TRUE

Diff: 1 Type: TF

Skill: Knowledge

Objective: LO 6-1

10) It is best to compare this year's performance with last year's actual performance rather than this year's budget.

Answer: FALSE

Explanation: It is best to compare this year's performance with this year's budget because inefficiencies and different conditions may be reflected in last year's actual performance amounts.

Diff: 2 Type: TF

Skill: Understand

Objective: LO 6-1

11) The priority approach to budgeting is an incremental approach.

Answer: FALSE

Explanation: In priority-based budgeting, the organization uses its strategic plan to establish the priorities for allocating new resources or areas that need to be protected if resources have to be cut.

Diff: 1 Type: TF

Skill: Remember

Objective: LO 6-1

12) The actual data resulting from a strategy should be compared to budgeted results.

Answer: TRUE

Diff: 2 Type: TF

Skill: Remember

Objective: LO 6-1

13) Planning the performance of the organization, providing a frame of reference, and investigating variances are part of the

- A) budgetary cycle.
- B) cash budget.
- C) financing budget.
- D) master budget.
- E) production budget.

Answer: A

Diff: 1 Type: MC

Skill: Remember

Objective: LO 6-1

14) The master budget embraces the impact of

- A) operating and managerial decisions.
- B) operating and financing decisions.
- C) financing and managerial decisions.
- D) operating, managerial, and financing decisions.
- E) the differences between the budget and the actual costs, for a given cycle.

Answer: B

Diff: 1 Type: MC

Skill: Remember

Objective: LO 6-1

15) A master budget

- A) includes only financial aspects of a plan and excludes nonfinancial aspects.
- B) is an aid to coordinating what needs to be done to implement a plan.
- C) includes broad expectations and visionary results.
- D) should not be altered after it has been agreed upon.
- E) is based upon budget constraints outside of management control.

Answer: B

Diff: 2 Type: MC

Skill: Remember

Objective: LO 6-1

16) Budgets are advantageous because they

- A) compel planning that includes the implementation of plans, provide performance criteria, and promote goodwill.
- B) provide performance criteria, promote goodwill, and save money.
- C) compel planning that includes the implementation of plans, provide performance criteria, and promote communication and coordination within the organization.
- D) compel planning that includes the implementation of plans, require organizing, and ensure controlling.
- E) ensure that the organization meets its goals.

Answer: C

Diff: 2 Type: MC

Skill: Remember

Objective: LO 6-1

17) The process of getting a company's objectives understood and accepted by all departments and functions is known as

- A) communication.
- B) compilation.
- C) continuity.
- D) coordination.
- E) administration.

Answer: A

Diff: 1 Type: MC

Skill: Remember

Objective: LO 6-1

18) Long-run planning (strategic plans) involves the preparation of the

- A) operating budget.
- B) cash budget.
- C) budget standards.
- D) profit plan.
- E) capital budget.

Answer: E

Diff: 1 Type: MC

Skill: Remember

Objective: LO 6-1

19) A limitation of comparing a company's performance against actual results of last year is that

- A) it includes adjustments for future conditions.
- B) feedback is no longer a possibility.
- C) the benchmark may be unrealistic.
- D) past results can contain inefficiencies of the past year.
- E) the budgeting time period is set at one year.

Answer: D

Diff: 2 Type: MC

Skill: Understand

Objective: LO 6-1

20) Stretch goals in budgeting tend to

- A) decrease line-management participation in attaining corporate goals.
- B) increase failure.
- C) increase anxiety without motivation.
- D) motivate improved performance beyond the status quo.
- E) improve communication and coordination.

Answer: D

Diff: 2 Type: MC

Skill: Understand

Objective: LO 6-1

21) Winnie and Pooh have just purchased a small honey manufacturing company that was having financial difficulties. After a brief operating period, they decided that the company's main problem was lack of any financial planning. The company made a good product and market potential was great.

Required:

Explain why a company needs a good budgeting plan. Specifically address the need for a master budget.

Answer: The master budget is a series of interrelated budgets that quantify management's expectations about a company's revenues, expenses, net income, cash flows, and financial position. As the culmination of the planning process, it provides the basis for:

1. reassessing the company's objectives,
2. coordinating the activities of various segments of the organization,
3. communicating management's plans throughout the organization, and
4. evaluating employee performance.

Diff: 1 Type: ES

Skill: Understand

Objective: LO 6-1

22) List and describe the four approaches to budgeting.

Answer:

1. **Traditional (historic) incremental/decremental approach.** While an incremental approach is easier to implement than other, more effective approaches to budgeting, it is fundamentally flawed because it starts from the basic assumptions that the organization is currently healthy and resources are allocated effectively.
2. **Priority approach.** In priority-based budgeting, the organization uses its strategic plan to establish the priorities for allocating new resources or areas that need to be protected if resources have to be cut. While this approach may require some difficult decisions to be made (it may result in entire activities/products/regions being cut), it is considered to be much more effective in helping the organization reach its strategic goals.
3. **Zero-based budgeting.** Zero-based budgeting involves all areas of the organization building their budgets from the "ground up" or from a starting point of zero. Essentially, every expense and revenue has to be justified as essential to the organization's operations. Frequently this type of budgeting exercise can identify significant cost savings and/or opportunities to reallocate existing resources. Unfortunately, zero based budgeting is very time consuming, anxiety provoking, and process intensive.
4. **Activity-based budgeting.** Activity-based budgeting (ABB) develops budgets based on the level of the various activities needed to fulfill the organizational goals. Instead of the number of units of product or hours of service being the basis for the budget, activity costs are calculated based on the level of activity needed to meet forecasted demand. This approach helps management to focus on the activities and costs needed to achieve the organization's goals.

Diff: 2 Type: ES

Skill: Remember

Objective: LO 6-1

23) Describe the benefits to an organization of preparing an operating budget.

Answer: A well-prepared operating budget should serve as a guide for a company to follow during the budgeted period. It is not "set in stone." If new information or opportunities arise, the budget should be adjusted.

A well-prepared operating budget assists management with the allocation of scarce resources. It can help management see trouble spots in advance, and then management can decide where to allocate its limited resources.

A well-prepared operating budget fosters communication and coordination among various segments of the company. The process of preparing a budget requires managers from different functional areas to work together and communicate performance levels they both want and can attain.

A well-prepared operating budget can become the performance standard against which firms can compare the actual results.

Diff: 3 Type: ES

Skill: Understand

Objective: LO 6-1

24) Listed below are elements of the master budget. Determine whether each budget is an operating budget or a financial budget. Place an O for operating budget or F for a financial budget.

1. Capital expenditures budget
2. Cost of goods sold budget
3. Revenues budget
4. Budgeted statement of cash flows
5. Distribution costs budget
6. Marketing costs budget
7. Cash budget
8. Direct materials cost budget
9. Budgeted balance sheet
10. Budgeted income statement

Answer: 1. F, 2. O, 3. O, 4. F, 5. O, 6. O, 7. F, 8. O, 9. F, 10. O

Diff: 2 Type: ES

Skill: Remember

Objective: LO 6-1

25) Describe operating and financial budgets and give at least two examples of each discussed in the textbook.

Answer: Operating budgets specify the expected outcomes of any selling, manufacturing, purchasing, labour management, R&D, marketing, distribution, customer service, and administrative activities during the planning period. Operations personnel use these plans to guide and coordinate activities during the planning period.

Examples of operating budgets include the revenues budget, production budget, direct materials costs budget, direct manufacturing labour costs budget, manufacturing overhead budget, and budgets for R&D, marketing, distribution, customer service, and administrative activities.

Financial budgets are used to evaluate the financial consequences of a proposed decision.

Examples of financial budgets include the capital expenditures budget, cash budget, budgeted balance sheet, and the budgeted statement of cash flows.

Diff: 3 Type: ES

Skill: Remember

Objective: LO 6-1

6.2 Prepare a master operating budget and all supporting budgets or schedules.

1) Budgets that change (rolling or continuous) motivate managers to look forward.

Answer: TRUE

Diff: 2 Type: TF

Skill: Remember

Objective: LO 6-2

2) The financial budget is that part of the master budget that comprises the capital budget, cash budget, operating budget, and budgeted balance sheet.

Answer: FALSE

Explanation: capital budget, cash budget, budgeted balance sheet, cash flow budget

Diff: 2 Type: TF

Skill: Remember

Objective: LO 6-2

3) The production budget of a manufacturing company is prepared after the revenue budget.

Answer: TRUE

Diff: 1 Type: TF

Skill: Remember

Objective: LO 6-2

4) Budgetary slack is automatically included in the revenue budget.

Answer: FALSE

Explanation: Padding the budget or introducing budgetary slack refers to underestimating budgeted revenue (or overestimating budgeted costs) to make budgeted targets easier to achieve.

Diff: 2 Type: TF

Skill: Remember

Objective: LO 6-2

5) A rolling budget encourages management to be thinking about the next 12 months.

Answer: TRUE

Diff: 2 Type: TF

Skill: Remember

Objective: LO 6-2

6) The revenue budget and the budgeted income statement are used to prepare the budgeted balance sheet and the budgeted statement of cash flows.

Answer: FALSE

Explanation: The cash budget and the budgeted income statement are necessary to prepare the budgeted balance sheet and budgeted statement of cash flows.

Diff: 2 Type: TF

Skill: Understand

Objective: LO 6-2

7) The usual starting point in budgeting is to forecast net income.

Answer: FALSE

Explanation: The usual starting point in budgeting is to forecast sales demand and revenues.

Diff: 2 Type: TF

Skill: Remember

Objective: LO 6-2

8) The master budget reports a large amount of nonfinancial data from various value chain functions.

Answer: TRUE

Diff: 2 Type: TF

Skill: Remember

Objective: LO 6-2

9) Clare's Bears manufactures stuffed bears. The company updates its annual budget every month in order to force management to think about the forthcoming 12 months and not just the current budget. This is an example of a

A) master budget.

B) moving budget.

C) target budget.

D) timing budget.

E) rolling budget.

Answer: E

Diff: 1 Type: MC

Skill: Remember

Objective: LO 6-2



10) The financial budget is that part of the master budget that comprises

- A) the capital budget and the cash budget.
- B) the capital budget and the budgeted balance sheet.
- C) the cash budget, operating budget and budgeted balance sheet.
- D) the cash budget, the budgeted statement of cash flows, and the retained earnings budget.
- E) the capital budget, the cash budget, budgeted balance sheet, and the budgeted statement of cash flows.

Answer: E

Diff: 1 Type: MC

Skill: Remember

Objective: LO 6-2

11) The first three schedules to complete when preparing the master operating budget are the

- A) revenue budget, production budget, and direct materials purchases and usage budget.
- B) costs of goods sold budget, production budget, and cash budget.
- C) revenue budget, overhead budget, and production budget.
- D) revenue budget, cash inflows, and production expenditures.
- E) revenue budget, costs of goods sold budget, and production budget.

Answer: A

Diff: 1 Type: MC

Skill: Understand

Objective: LO 6-2

12) A production budget expressed in units is equal to

- A) budgeted sales plus beginning finished goods inventory plus targeted ending finished goods inventory.
- B) budgeted sales less beginning finished goods inventory less targeted ending finished goods inventory.
- C) budgeted sales less beginning finished goods inventory plus targeted ending finished goods inventory.
- D) budgeted sales plus beginning finished goods inventory less targeted ending finished goods inventory.
- E) last year's sales plus beginning finished goods inventory plus targeted ending finished goods inventory.

Answer: C

Diff: 1 Type: MC

Skill: Remember

Objective: LO 6-2

13) Unit sales of Product 1 are currently 20,000, while unit sales of Product 2 are currently double those of Product 1. What will the company's sales forecast be assuming sales of Product 1 increase by 10 percent and those of Product 2 go up by 8,000 units from the current level?

- A) 20,000 and 40,000 units, respectively
- B) 22,000 and 44,000 units, respectively
- C) 22,000 and 46,000 units, respectively
- D) 76,000 units
- E) 22,000 and 48,000 units, respectively

Answer: E

Explanation: E)  $20,000 \times 110\% = 22,000$  units; and  $40,000 + 8,000 = 48,000$  units

Diff: 2 Type: MC

Skill: Apply

Objective: LO 6-2

14) For next year Flexsteel Company has budgeted sales of 40,000 units, target ending finished goods inventory of 2,000 units, and a beginning finished goods inventory of 1,200 units. All other inventories are zero. How many units should be produced?

- A) 39,200 units
- B) 40,000 units
- C) 41,800 units
- D) 42,800 units
- E) 40,800 units

Answer: E

Explanation: E)  $40,000 + 2,000 - 1,200 = 40,800$  units

Diff: 1 Type: MC

Skill: Apply

Objective: LO 6-2

15) Randy Company has budgeted sales of 12,000 units, target ending finished good inventory of 2,000 units, and a beginning finished goods inventory of 600 units. How many units should be produced?

- A) 14,600 units
- B) 13,400 units
- C) 10,600 units
- D) 9,400 units
- E) 7,250 units

Answer: B

Explanation: B)  $12,000 + 2,000 - 600 = 13,400$  units

Diff: 1 Type: MC

Skill: Apply

Objective: LO 6-2

16) Cooper Company has a production schedule of 18,000 units and a budgeted sales volume of 20,000 units for the current year. In addition, 4,000 units are in beginning finished goods inventory. How many units are targeted for ending finished goods inventory?

- A) 20,000 units
- B) 14,000 units
- C) 6,000 units
- D) 2,000 units
- E) 1,900 units

Answer: D

Explanation: D)  $18,000 = 20,000 + X - 4,000$ ;  $18,000 + 4,000 - 20,000 = X$ ;  $2,000 = X$

Diff: 2 Type: MC

Skill: Apply

Objective: LO 6-2

17) The direct materials usage budget is based on

- A) the units to be produced during a period.
- B) budgeted sales dollars.
- C) the predetermined factory overhead rate.
- D) the amount of labour hours worked.
- E) direct materials purchases.

Answer: A

Diff: 1 Type: MC

Skill: Remember

Objective: LO 6-2

18) Direct material purchases equal

- A) usage plus production needs.
- B) production needs plus target ending inventories.
- C) beginning inventories plus production needs.
- D) usage plus target ending inventories less beginning inventories.
- E) the number of units to be produced times the amount of direct material in each unit.

Answer: D

Diff: 1 Type: MC

Skill: Remember

Objective: LO 6-2

19) Manufacturing overhead costs for the budget include

- A) factory utility costs.
- B) direct materials and supervision.
- C) direct labour and direct materials.
- D) sales supervisors' salaries.
- E) direct labour and indirect labour.

Answer: A

Diff: 2 Type: MC

Skill: Remember

Objective: LO 6-2

*Use the information below to answer the following question(s).*

Berry's Boxes manufactures boxes. It expects to sell 20,000 boxes in 2015. The company had enough beginning inventory of direct materials to produce 24,000 units. Beginning inventory of finished units totalled 2,000 with a target ending inventory of 2,500 units. The boxes sell for \$3.00 and the company keeps no work-in-process inventory. Direct materials costs for each box total \$1.00 while direct labour is \$0.50. Factory overhead is \$0.20 per box.

20) What will be Berry's Boxes budgeted revenue?

- A) \$54,000
- B) \$60,000
- C) \$78,000
- D) \$79,500
- E) \$72,000

Answer: B

Explanation: B)  $20,000 \times \$3 = \$60,000$

Diff: 1 Type: MC

Skill: Apply

Objective: LO 6-2

21) How many boxes should Berry's Boxes produce in 2015?

- A) 24,000 boxes
- B) 20,000 boxes
- C) 19,500 boxes
- D) 20,500 boxes
- E) 22,500 boxes

Answer: D

Explanation: D)  $20,000 + 2,500 - 2,000 = 20,500$

Diff: 1 Type: MC

Skill: Apply

Objective: LO 6-2

22) What will be Berry's Boxes cost of goods sold in 2015?

- A) \$42,000
- B) \$24,000
- C) \$38,000
- D) \$30,000
- E) \$34,000

Answer: E

Explanation: E)  $(\$1.00 + \$0.50 + \$0.20) \times 20,000 \text{ boxes} = \$34,000$

Diff: 1 Type: MC

Skill: Apply

Objective: LO 6-2

23) What will be Berry's Boxes production costs incurred for direct materials, direct manufacturing labour, and manufacturing overhead, respectively, for 2015?

- A) \$20,500; \$10,250; \$4,100
- B) \$19,500; \$9,750; \$3,900
- C) \$10,000; \$5,000; \$4,000
- D) \$22,500; 11,250; \$4,500
- E) \$12,000; \$6,000; \$4,800

Answer: A

Explanation: A)  $DM = 20,500 \times \$1.00 = \$20,500$

$DL = 20,500 \times \$0.50 = \$10,250$

$MO = 20,500 \times \$0.20 = \$4,100$

Diff: 1 Type: MC

Skill: Apply

Objective: LO 6-2

*Use the information below to answer the following question(s).*

Country Heather manufactures flowerpots. It expects to sell 40,000 flowerpots in 2016. The company had enough beginning inventory of direct materials to produce 48,000 units. Beginning inventory of finished units totalled 4,000 with a target ending inventory of 5,000 units. The flowerpots sell for \$6.00 and the company keeps no work-in-process inventory. Direct materials costs for each flowerpot total \$2.00 while direct labour is \$1.00. Factory overhead is \$0.40 per flowerpot.

24) What will be Country Heather's budgeted revenue?

- A) \$216,000
- B) \$240,000
- C) \$312,000
- D) \$318,000
- E) \$300,500

Answer: B

Explanation: B)  $40,000 \times \$6 = \$240,000$

Diff: 1 Type: MC

Skill: Apply

Objective: LO 6-2

25) How many flowerpots should Country Heather produce in 2016?

- A) 48,000 flowerpots
- B) 44,000 flowerpots
- C) 41,000 flowerpots
- D) 39,000 flowerpots
- E) 18,000 flowerpots

Answer: C

Explanation: C)  $40,000 + 5,000 - 4,000 = 41,000$  flowerpots

Diff: 2 Type: MC

Skill: Apply

Objective: LO 6-2

26) What will be Country Heather's cost of goods sold?

- A) \$122,400
- B) \$136,000
- C) \$139,400
- D) \$149,600
- E) \$101,500

Answer: B

Explanation: B)  $40,000 \times (\$2.00 + \$1.00 + \$0.40) = \$136,000$

Diff: 2 Type: MC

Skill: Apply

Objective: LO 6-2

27) What will be Country Heather's total costs incurred for direct materials, direct manufacturing labour, and manufacturing overhead, respectively, for 2016?

- A) \$0; \$40,000; \$16,000
- B) \$0; \$41,000; \$16,000
- C) \$80,000; \$40,000; \$16,000
- D) \$82,000; \$41,000; \$16,400
- E) \$84,000; \$40,000; \$16,400

Answer: D

Explanation: D)  $41,000 \times \$2.00 = \$82,000$

$41,000 \times \$1.00 = \$41,000$

$41,000 \times \$0.40 = \$16,400$

Diff: 2 Type: MC

Skill: Apply

Objective: LO 6-2

*Use the information below to answer the following question(s).*

Fair Score Company manufactures scoreboards for athletic events. It expects to sell 20,000 scoreboards in 2015. The company has enough beginning inventory of direct materials to produce 8,000 units. Beginning work-in-process inventory totals 2,000 units and is 100 percent complete as to material and 50 percent complete as to labour and overhead. Beginning finished units total 4,000 with a target ending finished inventory of 3,000 units. The scoreboards sell for \$800. There is no ending work-in-process inventory. Direct materials costs for each scoreboard total \$200 while direct labour is \$80. Manufacturing overhead is \$60 per scoreboard.

28) What will be Fair Score Company's budgeted total sales for 2015?

- A) \$18,400,000
- B) \$17,600,000
- C) \$16,000,000
- D) \$15,200,000
- E) \$12,300,000

Answer: C

Explanation: C)  $20,000 \times \$800 = \$16,000,000$

Diff: 1 Type: MC

Skill: Apply

Objective: LO 6-2

29) How many scoreboards should Fair Score Company produce in 2015?

- A) 23,000
- B) 21,000
- C) 20,000
- D) 19,000
- E) 16,000

Answer: D

Explanation:  $D) 20,000 + 3,000 - 4,000 = 19,000$  scoreboards

Diff: 2 Type: MC

Skill: Apply

Objective: LO 6-2

30) What will be Fair Score Company's budgeted total cost of direct materials used in 2015?

- A) \$3,400,000
- B) \$3,800,000
- C) \$3,600,000
- D) \$3,200,000
- E) \$3,155,000

Answer: A

Explanation:  $A) 19,000 \text{ units} - 2,000 \text{ WIP} = 17,000$

$17,000 \times \$200 = \$3,400,000$  direct materials

Diff: 2 Type: MC

Skill: Apply

Objective: LO 6-2

31) What will be the Fair Score Company budgeted amount of cost of goods sold?

- A) \$8,160,000
- B) \$6,800,000
- C) \$6,460,000
- D) \$6,120,000
- E) \$5,975,000

Answer: B

Explanation:  $B) (20,000 \times (\$200 + \$80 + \$60)) = \$6,800,000$

Diff: 2 Type: MC

Skill: Apply

Objective: LO 6-2

*Use the information below to answer the following question(s).*

Layne Cedar manufactures cedar chests. The estimated number of chests for the first three months of 2016 is as follows:

<u>Month</u>	<u>Sales</u>
January	10,000
February	14,000
March	13,000

Finished goods inventory at the end of December is 3,000 units. Ending finished goods are equal to 30 percent of next month's sales. April 2016 sales are expected to total 16,000 units.

32) What should be the budgeted number of chests produced in January 2016?

- A) 8,800 chests
- B) 11,200 chests
- C) 13,000 chests
- D) 14,200 chests
- E) 14,700 chests

Answer: B

Explanation: B)  $10,000 + (14,000 \times 0.30) - 3,000 = 11,200$  chests

Diff: 2 Type: MC

Skill: Apply

Objective: LO 6-2

33) How many chests should be budgeted to be produced in the first quarter of 2016?

- A) 37,000 chests
- B) 44,800 chests
- C) 41,800 chests
- D) 38,800 chests
- E) 48,400 chests

Answer: D

Explanation: D)  $10,000 + 14,000 + 13,000 + (16,000 \times 0.30) - 3,000 = 38,800$  chests

Diff: 2 Type: MC

Skill: Apply

Objective: LO 6-2



Use the information below to answer the following question(s).

Contempo Futon manufactures futons. The estimated number of sales for the last quarter of 2015 is as follows:

<u>Month</u>	<u>Sales #</u>
October	20,000
November	25,000
December	30,000

Beginning finished goods inventory should be equal to 30 percent of that month's budgeted sales plus 10 percent of the following month's budgeted sales. January and February 2015 sales are anticipated to be 15,000 futons in each month. The cost to produce a futon is \$125.

34) What should be the number of futons Contempo Futon budgets to be produced in November?

- A) 34,000 futons
- B) 32,500 futons
- C) 26,200 futons
- D) 25,000 futons
- E) 23,000 futons

Answer: D

Explanation: D)  $25,000 + [(30,000 \times 0.3) + (15,000 \times 0.1)] - [(25,000 \times 0.3) + (30,000 \times 0.1)] = 25,000$  futons

Diff: 2 Type: MC

Skill: Apply

Objective: LO 6-2

35) How many futons will Contempo Futon budget to be produced in the three months?

- A) 72,500 futons
- B) 75,000 futons
- C) 82,500 futons
- D) 90,000 futons
- E) 98,650 futons

Answer: A

Explanation: A)  $[20,000 + 25,000 + 30,000] + [(0.3 \times 15,000) + (0.1 \times 15,000)] - [(0.3 \times 20,000) + (0.1 \times 25,000)] = 72,500$  futons

Diff: 2 Type: MC

Skill: Apply

Objective: LO 6-2

36) What will be Contempo Futon's cost of goods manufactured for December?

- A) \$3,937,500
- B) \$3,750,000
- C) \$2,812,500
- D) \$2,625,000
- E) \$3,187,500

Answer: E

Explanation: E)  $[30,000 + [(0.30 \times 15,000) + (0.1 \times 15,000)] - [(0.3 \times 30,000) + (0.1 \times 15,000)] \times \$125 = \$3,187,500$

Diff: 2 Type: MC

Skill: Apply

Objective: LO 6-2

*Answer the following question(s) using the information below.*

Furniture Inc. estimates the following number of mattress sales for the first four months of 2016:

<u>Month</u>	<u>Sales</u>
January	5,000
February	7,000
March	6,500
April	8,000

Finished goods inventory at the end of December 2015 is 1,500 units. Target ending finished goods inventory is 30% of the next month's sales.

37) How many mattresses need to be produced in January 2016?

- A) 4,400 mattresses
- B) 5,000 mattresses
- C) 6,500 mattresses
- D) 7,100 mattresses
- E) 5,600 mattresses

Answer: E

Explanation: E)  $5,000 + (7,000 \times 0.30) - 1,500 = 5,600$  mattresses

Diff: 2 Type: MC

Skill: Apply

Objective: LO 6-2

38) How many mattresses need to be produced in the first quarter (January, February, March) of 2016?

- A) 18,500 mattresses
- B) 19,400 mattresses
- C) 20,900 mattresses
- D) 22,400 mattresses
- E) 18,000 mattresses

Answer: B

Explanation: B)  $5,000 + 7,000 + 6,500 + (8,000 \times 0.30) - 1,500 = 19,400$  mattresses

Diff: 2 Type: MC

Skill: Apply

Objective: LO 6-2

- 39) In going from the sales budget to the production budget, adjustments need to be made for
- A) finished goods inventories.
  - B) overhead charges.
  - C) direct materials inventories.
  - D) sales returns and allowances.
  - E) changing from revenue to costs.

Answer: A

Diff: 1 Type: MC

Skill: Remember

Objective: LO 6-2

- 40) The budgeting process generally concludes with the preparation of the
- A) cash budget.
  - B) selling expense budget.
  - C) budgeted financial statements.
  - D) research and development budget.
  - E) production budget.

Answer: C

Diff: 1 Type: MC

Skill: Remember

Objective: LO 6-2

*Use the information below to answer the following question(s).*

Boone Hobbies, a wholesaler, has a sales budget for next month of \$600,000. Cost of units sold is expected to be 40 percent of sales. All units are paid for in the month following purchase. The beginning inventory of units is \$20,000, and an ending amount of \$24,000 is desired. Beginning accounts payable is \$152,000.

- 41) Boone Hobbies gross margin for next month is expected to be
- A) \$280,000.
  - B) \$336,000.
  - C) \$356,000.
  - D) \$360,000.
  - E) \$240,000.

Answer: D

Explanation: D)  $\$600,000 - (\$600,000 \times 0.40) = \$360,000$

Diff: 2 Type: MC

Skill: Apply

Objective: LO 6-2

42) Boone Hobbies budgeted purchases for next month is expected to be

- A) \$240,000.
- B) \$264,000.
- C) \$225,000.
- D) \$360,000.
- E) \$244,000.

Answer: E

Explanation: E)  $\$240,000 + \$24,000 - \$20,000 = \$244,000$

Diff: 2 Type: MC

Skill: Apply

Objective: LO 6-2

43) A rolling budget is a budget or plan that

- A) rolls several budgets together for forecasting purposes.
- B) has one budget category roll into the next category.
- C) rolls all budget categories together into a master budget.
- D) is always available for a specified future period by replacing time periods as the lapse.
- E) is not used to guide operations.

Answer: D

Diff: 1 Type: MC

Skill: Remember

Objective: LO 6-2

44) The operating budget includes the

- A) capital budget.
- B) cash budget.
- C) budgeted balance sheet.
- D) budgeted cash flow statement.
- E) production budget.

Answer: E

Diff: 1 Type: MC

Skill: Remember

Objective: LO 6-2

Use the information below to answer the following question(s).

Konrade Inc. expects to sell 30,000 athletic uniforms for \$80 each in 2016. Direct materials costs are \$20, direct manufacturing labour is \$8, and manufacturing overhead is \$6 for each uniform. Each uniform requires 2.0 square metres (sq. m.) of material which is all added at the start of production. The following inventory levels are expected to apply to 2016:

	<u>Beginning inventory</u>	<u>Ending inventory</u>
Direct materials	12,000 units	9,000 units
Work-in-process inventory	0 units	0 units
Finished goods inventory	6,000 units	5,000 units

45) What is the amount budgeted for cost of goods manufactured in 2016?

- A) \$1,020,000
- B) \$986,000
- C) \$1,156,000
- D) \$1,190,000
- E) \$1,054,000

Answer: B

Explanation: B)  $(30,000 + 5,000 - 6,000) \times (\$20 + \$8 + \$6) = \$986,000$

Diff: 2 Type: MC

Skill: Apply

Objective: LO 6-2

46) What is the amount budgeted for cost of goods sold in 2016?

- A) \$1,156,000
- B) \$986,000
- C) \$840,000
- D) \$2,400,000
- E) \$1,020,000

Answer: E

Explanation: E)  $30,000 \times (\$20 + \$8 + \$6) = \$1,020,000$

Diff: 2 Type: MC

Skill: Apply

Objective: LO 6-2

*Use the information below to answer the following question(s).*

Daniel Inc. expects to sell 6,000 ceramic vases for \$20 each in 2015. Direct materials costs are \$2, direct manufacturing labour is \$10, and manufacturing overhead is \$3 per vase. Each vase requires 0.5 kilograms (kg) of material which is all added at the start of production. The units in work-in-process beginning and ending inventory were half complete as to direct labour and manufacturing overhead costs; the units in beginning inventory are completed before new units are started. Each vase requires one hour of direct labour, and manufacturing overhead is allocated based on direct labour hours. The following inventory levels are expected to apply to 2015:

	<u>Beginning inventory</u>	<u>Ending inventory</u>
Direct materials	1,000 kg	800 kg
Work-in-process inventory	100 units	300 units
Finished goods inventory	400 units	500 units

47) On the 2015 budgeted income statement, what amount will be reported for gross margin?

- A) \$122,000
- B) \$90,000
- C) \$48,000
- D) \$30,000
- E) \$120,000

Answer: D

Explanation: D)  $6,000 \times (\$20 - (\$2 + \$10 + \$3)) = \$30,000$

Diff: 2 Type: MC

Skill: Apply

Objective: LO 6-2

48) How many ceramic vases need to be produced in 2015?

- A) 5,900 vases
- B) 6,100 vases
- C) 7,000 vases
- D) 6,000 vases
- E) 6,300 vases

Answer: B

Explanation: B)  $6,000 + 500 - 400 = 6,100$  vases

Diff: 2 Type: MC

Skill: Apply

Objective: LO 6-2

49) How many kilograms of material will need to be purchased for 2015 production and inventory requirements?

- A) 3,100 kg
- B) 2,900 kg
- C) 2,750 kg
- D) 3,150 kg
- E) 2,950 kg

Answer: E

Explanation: E)  $[(6,100 - 100 + 300) \times 0.5 \text{ kg}] + 800 \text{ kg} - 1,000 \text{ kg} = 2,950 \text{ kg}$

Diff: 3 Type: MC

Skill: Apply

Objective: LO 6-2

50) On the 2015 budgeted income statement, what amount will be reported for cost of goods sold?

- A) \$91,500
- B) \$105,000
- C) \$90,000
- D) \$88,500
- E) \$72,000

Answer: C

Explanation: C)  $6,000 \times (\$2 + \$10 + \$3) = \$90,000$

Diff: 2 Type: MC

Skill: Apply

Objective: LO 6-2

51) What are the 2015 budgeted costs for direct manufacturing labour?

- A) \$62,000
- B) \$60,000
- C) \$61,000
- D) \$59,000
- E) \$63,000

Answer: A

Explanation: A)  $[(100 \text{ units} \times 1/2) + (6,000 \text{ units}) + (300 \text{ units} \times 1/2)] \times \$10.00 = \$62,000$

Diff: 3 Type: MC

Skill: Apply

Objective: LO 6-2

*Use the information below to answer the following question(s).*

Marguerite Inc.. expects to sell 20,000 pool cues for \$20.00 each. Direct materials costs are \$2.00, direct manufacturing labour is \$12.00, and manufacturing overhead is \$0.80 per pool cue. Each pool cue requires 0.5 kilograms (kg) of material which is all added at the start of production. The units in work-in-process beginning and ending inventory were half complete as to direct labour and manufacturing overhead costs; the units in beginning inventory are completed before new units are started.. Each pool cue requires one hour of direct labour, and manufacturing overhead is allocated based on direct labour hours. The following inventory levels are expected to apply to 2016:

	<u>Beginning inventory</u>	<u>Ending inventory</u>
Direct materials	800 kg	1,000 kg
Work-in-process inventory	200 units	300 units
Finished goods inventory	2,000 units	2,500 units

52) On the 2016 budgeted income statement, what amount will be reported for gross margin?

- A) \$124,000
- B) \$104,000
- C) \$312,000
- D) \$160,000
- E) \$400,000

Answer: B

Explanation: B)  $20,000 \times (\$20 - (\$2.00 + \$12.00 + \$0.80)) = \$104,000$

Diff: 2 Type: MC

Skill: Apply

Objective: LO 6-2

53) How many pool cues need to be produced in 2016?

- A) 22,500 cues
- B) 18,000 cues
- C) 20,000 cues
- D) 19,500 cues
- E) 20,500 cues

Answer: E

Explanation: C)

E)  $20,000 + 2,500 - 2,000 = 20,500$

Diff: 2 Type: MC

Skill: Apply

Objective: LO 6-2



54) How many kilograms of material will need to be purchased for 2016 production and inventory requirements?

- A) 11,500 kg
- B) 10,700 kg
- C) 10,300 kg
- D) 10,500 kg
- E) 10,000 kg

Answer: D

Explanation: B)

D)  $[(20,500 - 200 + 300) \times 0.5 \text{ kg}] + 1,000 \text{ kg} - 800 \text{ kg} = 10,500 \text{ kg}$

Diff: 3 Type: MC

Skill: Apply

Objective: LO 6-2

55) On the 2016 budgeted income statement, what amount will be reported for cost of goods sold?

- A) \$296,000
- B) \$280,000
- C) \$276,000
- D) \$290,000
- E) \$292,000

Answer: A

Explanation: A)  $20,000 \times (\$2.00 + \$12.00 + \$0.80) = \$296,000$

Diff: 2 Type: MC

Skill: Apply

Objective: LO 6-2

56) What are the 2016 budgeted costs for direct manufacturing labour?

- A) \$248,000
- B) \$247,200
- C) \$249,000
- D) \$246,600
- E) \$246,000

Answer: D

Explanation: D)  $[(200 \text{ units} \times 1/2) + (20,300 \text{ units}) + (300 \text{ units} \times 1/2)] \times \$12.00 = \$246,600$

Diff: 3 Type: MC

Skill: Apply

Objective: LO 6-2

*Use the information below to answer the following question(s).*

Samson Inc. expects to sell 10,000 barbells for \$18.00 each. Direct materials costs are \$5.00, direct manufacturing labour is \$6.00, and manufacturing overhead is \$2.50 per barbell. Each barbell requires 6 kilograms (kg) of material which is all added at the start of production. The units in work-in-process beginning and ending inventory were half complete as to direct labour and manufacturing overhead costs; the units in beginning inventory are completed before new units are started.. Each barbell requires one-quarter hour of direct labour, and manufacturing overhead is allocated based on direct labour hours. Marketing costs are \$2.00 per barbell. The following inventory levels are expected to apply to 2016:

	<u>Beginning inventory</u>	<u>Ending inventory</u>
Direct materials	500 kg	800 kg
Work-in-process inventory	100 units	200 units
Finished goods inventory	200 units	150 units

57) On the 2016 budgeted income statement, what amount will be reported for gross margin?

- A) \$45,000
- B) \$70,000
- C) \$25,000
- D) \$40,000
- E) \$35,000

Answer: A

Explanation: A)  $10,000 \times (\$18 - (\$5.00 + \$6.00 + \$2.50)) = \$45,000$

Diff: 2 Type: MC

Skill: Apply

Objective: LO 6-2

58) How many barbells need to be produced in 2016?

- A) 11,050
- B) 9,850
- C) 10,000
- D) 10,050
- E) 9,950

Answer: E

Explanation: E)  $10,000 + 150 - 200 = 9,950$

Diff: 2 Type: MC

Skill: Apply

Objective: LO 6-2

59) How many kilograms of material will need to be purchased for 2016 production and inventory requirements?

- A) 60,900 kg.
- B) 60,600 kg.
- C) 60,300 kg.
- D) 60,000 kg.
- E) 62,100 kg.

Answer: B

Explanation: B)  $[(9,950 + 200 - 100) \times 6 \text{ kg}] + 800 \text{ kg} - 500 \text{ kg} = 60,600 \text{ kg}$

Diff: 3 Type: MC

Skill: Apply

Objective: LO 6-2

60) On the 2016 budgeted income statement, what amount will be reported for cost of goods sold?

- A) \$132,975
- B) \$135,675
- C) \$134,325
- D) \$135,000
- E) \$155,000

Answer: D

Explanation: D)  $10,000 \times (\$6 + \$5 + \$2.50) = \$135,000$

Diff: 2 Type: MC

Skill: Apply

Objective: LO 6-2

61) What are the 2016 budgeted costs for direct manufacturing labour?

- A) \$59,700
- B) \$60,300
- C) \$60,700
- D) \$240,000
- E) \$60,000

Answer: E

Explanation: E)  $[(100 \text{ units} \times 1/2) + (9,850 \text{ units}) + (200 \text{ units} \times 1/2)] \times \$6.00 = \$60,000$

Diff: 3 Type: MC

Skill: Apply

Objective: LO 6-2

62) Shamokin Manufacturing produces two products, Big and Bigger. Shamokin expects to sell 10,000 units of product Bigger and to have an inventory of 2,000 units of Bigger on hand at the end of the period. Currently, Shamokin has 800 units of Bigger on hand. Bigger requires two labour operations, molding and polishing. Each unit of Bigger requires one hour of molding and two hours of polishing. The direct labour rate for molding is \$20 per molding hour and the direct labour rate for polishing is \$25 per polishing hour. The expected number of hours of direct labour for Bigger is

- A) 8,800 hours of molding; 17,600 hours of polishing.
- B) 11,200 hours of molding; 22,400 hours of polishing.
- C) 17,600 hours of molding; 8,800 hours of polishing.
- D) 22,400 hours of molding; 11,200 hours of polishing.
- E) 10,000 hours of molding; 20,000 hours of polishing.

Answer: B

Explanation: B)  $10,000 + 2,000 - 800 = 11,200$

$(11,200 \times 1) = 11,200$  hours of molding;  $(11,200 \times 2) = 22,400$  hours of polishing

Diff: 2 Type: MC

Skill: Apply

Objective: LO 6-2

63) Tripp Company sells three products with the following seasonal sales pattern:

<u>Quarter</u>	<u>Products</u>		
	<u>X</u>	<u>Y</u>	<u>Z</u>
1	40%	30%	10%
2	30%	20%	40%
3	20%	20%	40%
4	10%	30%	10%

The annual sales budget shows forecasts for the different products and their expected selling price per unit as follows:

<u>Product</u>	<u>Units</u>	<u>Selling Price</u>
X	40,000	\$ 3
Y	100,000	\$12
Z	50,000	\$ 5

Required:

Prepare a revenue budget in dollars for each quarter. Present each quarter in a separate column and add a column to show total year sales.

Answer:	<u>First</u> <u>Quarter</u>	<u>Second</u> <u>Quarter</u>	<u>Third</u> <u>Quarter</u>	<u>Fourth</u> <u>Quarter</u>	<u>Year</u> <u>Total</u>
<u>Product X:</u>					
Sales (units)	16,000	12,000	8,000	4,000	40,000
Price	<u>× \$3</u>	<u>× \$3</u>	<u>× \$3</u>	<u>× \$3</u>	<u>× \$3</u>
Sales (\$)	48,000	\$36,000	24,000	\$12,000	\$120,000
<u>Product Y:</u>					
Sales (units)	30,000	20,000	20,000	30,000	100,000
Price	<u>× \$12</u>	<u>× \$12</u>	<u>× \$12</u>	<u>× \$12</u>	<u>× \$12</u>
Sales (\$)	\$360,000	\$240,000	\$240,000	\$360,000	\$1,200,000
<u>Product Z:</u>					
Sales (units)	5,000	20,000	20,000	5,000	50,000
Price	<u>× \$5</u>	<u>× \$5</u>	<u>× \$5</u>	<u>× \$5</u>	<u>× \$5</u>
Sales (\$)	<u>\$25,000</u>	<u>\$100,000</u>	<u>\$100,000</u>	<u>\$25,000</u>	<u>\$250,000</u>
Total dollars	<u>\$433,000</u>	<u>\$376,000</u>	<u>\$364,000</u>	<u>\$397,000</u>	<u>\$1,570,000</u>

Diff: 2 Type: ES

Skill: Apply

Objective: LO 6-2

64) Spirit Company sells three products with the following seasonal sales pattern:

<u>Quarter</u>	<u>Products</u>		
	<u>A</u>	<u>B</u>	<u>C</u>
1	40%	30%	10%
2	30%	20%	40%
3	20%	20%	40%
4	10%	30%	10%

The annual sales budget shows forecasts for the different products and their expected selling price per unit as follows:

<u>Product</u>	<u>Units</u>	<u>Selling Price</u>
A	50,000	\$4
B	125,000	10
C	62,500	6

Required:

Prepare a sales budget, in units and dollars, by quarters for the company for the coming year.

Answer:	<u>First</u>	<u>Second</u>	<u>Third</u>	<u>Fourth</u>	<u>Total</u>
	<u>Quarter</u>	<u>Quarter</u>	<u>Quarter</u>	<u>Quarter</u>	
<u>Product A:</u>					
Sales (units)	20,000	15,000	10,000	5,000	50,000
Price	<u>× \$4</u>	<u>× \$4</u>	<u>× \$4</u>	<u>× \$4</u>	<u>× \$4</u>
Sales	\$80,000	\$60,000	\$40,000	\$20,000	\$200,000
<u>Product B:</u>					
Sales (units)	37,500	25,000	25,000	37,500	125,000
Price	<u>× \$10</u>	<u>× \$10</u>	<u>× \$10</u>	<u>× \$10</u>	<u>× \$10</u>
Sales	\$375,000	\$250,000	\$250,000	\$375,000	\$1,250,000
<u>Product C:</u>					
Sales (units)	6,250	25,000	25,000	6,250	62,500
Price	<u>× \$6</u>	<u>× \$6</u>	<u>× \$6</u>	<u>× \$6</u>	<u>× \$6</u>
Sales	<u>\$37,500</u>	<u>\$150,000</u>	<u>\$150,000</u>	<u>\$37,500</u>	<u>\$375,000</u>
Total	<u>\$492,500</u>	<u>\$460,000</u>	<u>\$440,000</u>	<u>\$432,500</u>	<u>\$1,825,000</u>

Diff: 2 Type: ES

Skill: Apply

Objective: LO 6-2

65) Nittany Company sells three products with the following seasonal sales pattern:

<u>Quarter</u>	<u>Products</u>		
	<u>A</u>	<u>B</u>	<u>C</u>
1	40%	30%	10%
2	30%	20%	40%
3	20%	20%	40%
4	10%	30%	10%

The annual sales budget shows forecasts for the different products and their expected selling price per unit as follows:

<u>Product</u>	<u>Units</u>	<u>Selling Price</u>
A	50,000	\$ 8
B	125,000	20
C	62,500	12

**Required:**

Prepare a sales budget, in units and dollars, by quarters for the company for the coming year.

Answer:	<u>First</u> <u>Quarter</u>	<u>Second</u> <u>Quarter</u>	<u>Third</u> <u>Quarter</u>	<u>Fourth</u> <u>Quarter</u>	<u>Total</u>
Product A:					
Sales (units)	20,000	15,000	10,000	5,000	50,000
Price	× \$8	× \$8	× \$8	× \$8	× \$8
Sales	\$160,000	\$120,000	\$80,000	\$40,000	\$400,000
Product B:					
Sales (units)	37,500	25,000	25,000	37,500	125,000
Price	× \$20	× \$20	× \$20	× \$20	× \$20
Sales	\$750,000	\$500,000	\$500,000	\$750,000	\$2,500,000
Product C:					
Sales (units)	6,250	25,000	25,000	6,250	62,500
Price	× \$12	× \$12	× \$12	× \$12	× \$12
Sales	\$75,000	\$300,000	\$300,000	\$75,000	\$750,000
Total	\$985,000	\$920,000	\$880,000	\$865,000	\$3,650,000

Diff: 2 Type: ES

Skill: Apply

Objective: LO 6-2

66) Frame Antique manufactures picture frames. Sales for May are expected to be 20,000 units of various sizes. Historically, the average frame requires three metres of framing, one square metre of glass, and two square metres of backing. Beginning inventory includes 3,000 metres of framing, 1,000 square metres of glass, and 1,000 square metres of backing. Current prices are \$0.20 per metre of framing, \$4.00 per square metre of glass, and \$1.50 per square metre of backing. Ending inventory should be 150 percent of beginning inventory. Purchases are paid for in the month acquired.

Required:

- Determine the quantity of framing, glass, and backing that is to be purchased during May.
- Determine the total costs of direct materials for May purchases.

Answer:

a.

	<u>Framing</u>	<u>Glass</u>	<u>Backing</u>
Desired ending inventory	4,500	1,500	1,500
Production needs (20,000 units)	<u>60,000</u>	<u>20,000</u>	<u>40,000</u>
Total needs	64,500	21,500	41,500
Less: beginning inventory	<u>3,000</u>	<u>1,000</u>	<u>1,000</u>
Purchases planned	<u>61,500</u>	<u>20,500</u>	<u>40,500</u>

b. Cost of direct materials:

Framing (61,500 × \$0.20)	\$12,300
Glass (20,500 × \$4.00)	82,000
Backing (40,500 × \$1.50)	<u>60,750</u>
Total	<u>\$155,050</u>

Diff: 2 Type: ES

Skill: Apply

Objective: LO 6-2



67) Picture Pretty manufactures picture frames. Sales for August are expected to be 10,000 units of various sizes. Historically, the average frame requires four metres of framing, one square metre of glass, and two square metres of backing. Beginning inventory includes 1,500 metre of framing, 500 square metres of glass, and 500 square metres of backing. Current prices are \$0.30 per metre of framing, \$6.00 per square metre of glass, and \$2.25 per square metre of backing. Ending inventory should be 150% of beginning inventory. Purchases are paid for in the month acquired.

Required:

- Determine the quantity of framing, glass, and backing that is to be purchased during August.
- Determine the total costs of direct materials for August purchases.

Answer:

a.

	<u>Framing</u>	<u>Glass</u>	<u>Backing</u>
Desired ending inventory*	2,250	750	750
Production needs (10,000 units)**	<u>40,000</u>	<u>10,000</u>	<u>20,000</u>
Total needs	42,250	10,750	20,750
Less: Beginning inventory	<u>1,500</u>	<u>500</u>	<u>500</u>
Purchases planned	<u>40,750</u>	<u>10,250</u>	<u>20,250</u>

b.

Cost of direct materials:

Framing (40,750 × \$0.30)	\$12,225.00
Glass (10,250 × \$6.00)	61,500.00
Backing (20,250 × \$2.25)	<u>45,562.50</u>
Total	<u>\$119,287.50</u>

\*1,500 × 1.5 = 2,250 framing

500 × 1.5 = 750 glass

500 × 1.5 = 750 backing

\*\*10,000 × 4 = 40,000 framing

10,000 × 1 = 10,000 glass

10,000 × 2 = 20,000 backing

Diff: 2 Type: ES

Skill: Apply

Objective: LO 6-2

68) Budget Corporation has the following budgeted sales for the next six-month period:

<u>Month</u>	<u>Unit Sales</u>
September	60,000
October	80,000
November	140,000
December	100,000
January	120,000
February	80,000

There were 30,000 units of finished goods in inventory at the beginning of September. Plans are to have an inventory of finished products that equal 20 percent of the unit sales for the next month.

Five kilograms of materials are required for each unit produced. Each kilogram of material costs \$10. Inventory levels for materials are equal to 30 percent of the needs for the next month. Materials inventory on September 1 was 10,000 kilograms.

Required:

- Prepare production budgets in units for October, November, and December.
- Prepare a purchases budget in kilograms for October, November, and December, and give total purchases in both kilograms and dollars for each month.

Answer:

a.	<u>October</u>	<u>November</u>	<u>December</u>
Budgeted sales	80,000	140,000	100,000
Add: required ending inventory	<u>28,000</u>	<u>20,000</u>	<u>24,000</u>
Total inventory requirements	108,000	160,000	124,000
Less: beginning inventory	<u>16,000</u>	<u>28,000</u>	<u>20,000</u>
Budgeted production	<u>92,000</u>	<u>132,000</u>	<u>104,000</u>
b.	<u>October</u>	<u>November</u>	<u>December</u>
Production in units	<u>92,000</u>	<u>132,000</u>	<u>104,000</u>
Targeted ending inventory*	198,000	156,000	168,000**
Production needs***	<u>460,000</u>	<u>660,000</u>	<u>520,000</u>
Total requirements	658,000	816,000	688,000
Less: beginning inventory	<u>138,000</u>	<u>198,000</u>	<u>156,000</u>
Purchases needed in kg	520,000	618,000	532,000
Cost (\$10 per kg)	<u>× \$10</u>	<u>× \$10</u>	<u>× \$10</u>
Total material purchases	<u>\$5,200,000</u>	<u>\$6,180,000</u>	<u>\$5,320,000</u>

\*0.3 times next month's needs

\*\* $(120,000 + 16,000 - 24,000)$  times 5 kg  $\times$  0.3

\*\*\*5 kg times units to be produced

Diff: 3 Type: ES

Skill: Apply

Objective: LO 6-2

69) Lubriderm Corporation has the following budgeted sales for the next six-month period:

<u>Month</u>	<u>Unit Sales</u>
June	90,000
July	120,000
August	210,000
September	150,000
October	180,000
November	120,000

There were 30,000 units of finished goods in inventory at the beginning of June. Plans are to have an inventory of finished products that equal 20 percent of the unit sales for the next month.

Five kilograms of materials are required for each unit produced. Each pound of material costs \$8. Inventory levels for materials are equal to 30 percent of the needs for the next month. Materials inventory on June 1 was 15,000 kilograms.

Required:

- Prepare production budgets in units for July, August, and September.
- Prepare a purchases budget in kilograms for July, August, and September, and give total purchases in both kilograms and dollars for each month.

Answer:

a.	July	August	September
Budgeted sales	120,000	210,000	150,000
Add: Required ending inventory	<u>42,000</u>	<u>30,000</u>	<u>36,000</u>
Total inventory requirements	162,000	240,000	186,000
Less: Beginning inventory	<u>24,000</u>	<u>42,000</u>	<u>30,000</u>
Budgeted production	<u>138,000</u>	<u>198,000</u>	<u>156,000</u>
b.	July	August	September
Production in units	<u>138,000</u>	<u>198,000</u>	<u>156,000</u>
Targeted ending inventory in kgs.*	297,000	234,000	**252,000
Production needs in kgs.**	<u>690,000</u>	<u>990,000</u>	<u>780,000</u>
Total requirements in kgs.	987,000	1,224,000	1,032,000
Less: Beginning inventory in kgs.***	<u>207,000</u>	<u>297,000</u>	<u>234,000</u>
Purchases needed in kgs.	780,000	927,000	798,000
Cost (\$8 per kg.)	<u>× \$8</u>	<u>× \$8</u>	<u>× \$8</u>
Total material purchases	<u>\$6,240,000</u>	<u>\$7,416,000</u>	<u>\$6,384,000</u>

\* 0.3 times next month's needs

\*\*  $(180,000 + 24,000 - 36,000) \text{ times } 5 \text{ kgs.} \times 0.3$

\*\*\* 5 kgs. times units to be produced, across row

\*\*\*\*  $(690,000 \times .3) = 207,000 \text{ kgs., etc. row across}$

Diff: 3 Type: ES

Skill: Apply

Objective: LO 6-2

70) Gerdie Company has the following information:

Month	Budgeted Sales
March	\$50,000
April	53,000
May	51,000
June	54,500
July	52,500

In addition, the gross profit rate is 40% and the desired ending inventory level is 30% of next month's cost of sales.

Required:

Prepare a purchases budget for April through June.

Answer:	April	May	June	Total
Desired ending inventory	\$9,180	\$9,810	\$9,450	\$9,450
Plus COGS	<u>1,800</u>	<u>30,600</u>	<u>32,700</u>	<u>95,100</u>
Total less beginning inventory	<u>9,540</u>	<u>9,180</u>	<u>9,810</u>	<u>9,540</u>
Total purchases	<u>\$31,440</u>	<u>\$31,230</u>	<u>\$32,340</u>	<u>\$95,010</u>

Diff: 3 Type: ES

Skill: Apply

Objective: LO 6-2

71) The Doran Company prepared the following revenue budget:

Month	Budgeted Sales
March	\$250,000
April	265,000
May	255,000
June	272,500
July	262,500

In addition, the gross profit rate is 40 percent and the desired inventory level is 30 percent of next month's cost of goods sold.

Required:

Prepare a purchases budget for April through June.

Answer:	April	May	June
Desired ending inventory	\$45,900	\$49,050	\$47,250
Plus COGS	<u>159,000</u>	<u>153,000</u>	<u>163,500</u>
Total needed	\$204,900	\$202,050	\$210,750
Less beginning inventory	<u>47,700</u>	<u>45,900</u>	<u>49,050</u>
Total purchases	<u>\$157,200</u>	<u>\$156,150</u>	<u>\$161,700</u>

Diff: 2 Type: ES

Skill: Apply

Objective: LO 6-2

72) Perry Company has the following information:

Month	Budgeted Sales
March	\$100,000
April	106,000
May	102,000
June	109,000
July	105,000

In addition, the gross profit rate is 40% and the desired inventory level is 30% of next month's cost of sales.

Required:

Prepare a purchases budget for April through June.

Answer:	April	May	June	Total
Desired ending inventory	\$ 18,360	\$ 19,620	\$ 18,900	\$ 18,900
Plus COGS	<u>63,600</u>	<u>61,200</u>	<u>65,400</u>	<u>190,200</u>
Total needed	81,960	80,820	84,300	209,100
Less beginning inventory	<u>19,080</u>	<u>18,360</u>	<u>19,620</u>	<u>19,080</u>
Total purchases	<u>\$62,880</u>	<u>\$62,460</u>	<u>\$64,680</u>	<u>\$ 190,020</u>

Diff: 2 Type: ES

Skill: Apply

Objective: LO 6-2

73) Favata Company has the following information:

Month	Budgeted Sales
June	\$60,000
July	51,000
August	40,000
September	70,000
October	72,000

In addition, the cost of goods sold rate is 70% and the desired inventory level is 30% of next month's cost of sales.

Required:

Prepare a purchases budget for July through September.

Answer:	July	Aug	Sept	Total
Desired ending inventory	\$8,400	\$14,700	\$15,120	\$15,120
Plus COGS	<u>5,700</u>	<u>28,000</u>	<u>49,000</u>	<u>112,700</u>
Total needed	4,100	42,700	64,120	127,820
Less beginning inventory	<u>10,710</u>	<u>8,400</u>	<u>14,700</u>	<u>10,710</u>
Total purchases	<u>\$33,390</u>	<u>\$34,300</u>	<u>\$49,420</u>	<u>\$117,110</u>

Diff: 2 Type: ES

Skill: Apply

Objective: LO 6-2

74) Fashion Company has the following projected account balances for April 30, 2015:

Accounts payable	\$20,000	Sales	\$400,000
Accounts receivable	50,000	Capital stock	200,000
Amortization, factory	12,000	Retained earnings	?
Inventories (3/31 & 4/30)	90,000	Cash	28,000
Direct materials used	100,000	Equipment, net	120,000
Office salaries	40,000	Buildings, net	200,000
Insurance, factory	2,000	Utilities, factory	8,000
Plant wages	70,000	Selling expenses	30,000
Bonds payable	80,000	Maintenance, factory	14,000

Required:

- Prepare a budgeted income statement for April 2015.
- Prepare a budgeted balance sheet as of April 30, 2015.

Answer:

a.

Fashion Company			
Income Statement			
For the Month of April 2015			
Sales		\$400,000	
Cost of goods sold:			
Materials used	\$100,000		
Wages	70,000		
Amortization	12,000		
Insurance	2,000		
Maintenance	14,000		
Utilities	<u>8,000</u>	<u>206,000</u>	
Gross profit		194,000	
Operating expenses:			
Selling expenses	\$30,000		
Office salaries	<u>40,000</u>	<u>70,000</u>	
Net income		<u>\$124,000</u>	

b.

Fashion Company  
Balance Sheet  
As of April 30, 2015

Assets:		Liab. and Owner's Equity:	
Cash	\$28,000	Accounts payable	\$20,000
Accounts receivable	50,000	Bonds payable	80,000
Inventories	90,000	Capital stock	200,000
Equipment, net	120,000	Retained earnings	<u>188,000</u>
Buildings, net	<u>200,000</u>		
Total	<u>\$488,000</u>	Total	<u>\$488,000</u>

Diff: 2 Type: ES

Skill: Apply

Objective: LO 6-2

75) Edwards Company has the following projected account balances for June 30, 2015:

Accounts payable	\$40,000	Sales	\$800,000
Accounts receivable	100,000	Capital stock	400,000
Depreciation, factory	24,000	Retained earnings	?
Inventories (5/31 & 6/30)	180,000	Cash	56,000
Direct materials used	200,000	Equipment, net	240,000
Office salaries	80,000	Buildings, net	400,000
Insurance, factory	4,000	Utilities, factory	16,000
Plant wages	140,000	Selling expenses	60,000
Bonds payable	160,000	Maintenance, factory	28,000

Required:

- Prepare a budgeted income statement for June 2015.
- Prepare a budgeted balance sheet as of June 30, 2015.



Answer:

a.

Edwards Company  
Income Statement  
For the Month of June 2015

Sales		\$800,000
Cost of goods sold:		
Materials used	\$200,000	
Wages	140,000	
Depreciation	24,000	
Insurance	4,000	
Maintenance	28,000	
Utilities	<u>16,000</u>	<u>412,000</u>
Gross profit		388,000
Operating expenses:		
Selling expenses	\$60,000	
Office salaries	<u>80,000</u>	<u>140,000</u>
Net income		<u>\$248,000</u>

b.

Edwards Company  
Balance Sheet  
June 30, 2015

<b>Assets:</b>		<b>Liabilities and Owners' Equity:</b>	
Cash	\$56,000	Accounts payable	\$40,000
Accounts receivable	100,000	Bonds payable	160,000
Inventories	180,000	Capital stock	400,000
Equipment, net	240,000	Retained earnings*	<u>376,000</u>
Buildings, net	<u>400,000</u>		
Total	<u>\$976,000</u>	Total	<u>\$976,000</u>

\*\$976,000 - (\$40,000 + \$160,000 + \$400,000) = \$376,000

Diff: 2 Type: ES

Skill: Apply

Objective: LO 6-2

76) Russell Company has the following projected account balances for June 30, 2016:

Accounts payable	\$80,000	Sales	\$1,600,000
Accounts receivable	200,000	Capital stock	800,000
Depreciation, factory	48,000	Retained earnings	?
Inventories (5/31 & 6/30)	360,000	Cash	112,000
Direct materials used	400,000	Equipment, net	480,000
Office salaries	160,000	Buildings, net	800,000
Insurance, factory	8,000	Utilities, factory	32,000
Plant wages	280,000	Selling expenses	120,000
Bonds payable	320,000	Maintenance, factory	56,000

Required:

- Prepare a budgeted income statement for June 2016
- Prepare a budgeted balance sheet as of June 30, 2016

Answer:

- Russell Company  
Budgeted Income Statement  
For the Month of June 2016

Sales		\$1,600,000
Cost of goods sold:		
Materials used	\$400,000	
Wages	280,000	
Depreciation	48,000	
Insurance	8,000	
Maintenance	56,000	
Utilities	<u>32,000</u>	<u>824,000</u>
Gross profit		776,000
Operating expenses:		
Selling expenses	\$120,000	
Office salaries	<u>160,000</u>	<u>280,000</u>
Net income		<u>\$496,000</u>

- Russell Company  
Budgeted Balance Sheet  
June 30, 2016

<b>Assets:</b>		<b>Liabilities and Owners' Equity:</b>	
Cash	\$ 112,000	Accounts payable	\$ 80,000
Accounts receivable	200,000	Bonds payable	320,000
Inventories	360,000	Capital stock	800,000
Equipment, net	480,000	Retained earnings*	<u>752,000</u>
Buildings, net	<u>800,000</u>		
Total	<u>\$1,952,000</u>	Total	<u>\$1,952,000</u>

\*\$1,952,000 - (\$80,000 + \$320,000 + \$800,000) = \$752,000

Diff: 2 Type: ES

Skill: Apply

Objective: LO 6-2

77) Barrieland Merchandising Firm is developing its budgets for 2016. The 2015 income statement is as follows:

Sales (100,000 units)	\$250,000
Less: Cost of goods sold	<u>150,000</u>
Gross profit	\$100,000
Operating expenses (includes \$10,000 of depreciation)	<u>60,000</u>
Net income	<u>\$40,000</u>

Selling prices will increase by 10 percent and sales volume in units will decrease by 5 percent. The cost of goods sold as a percent of sales will increase to 62 percent. Other than amortization, all operating costs are variable.

Required:

Prepare a budgeted income statement for 2016.

Answer:

Barrieland Merchandising Firm  
Income Statement  
For the Year 2016

Sales ( $95,000 \times \$2.75$ )	\$261,250
Cost of goods sold	<u>161,975</u>
Gross profit	\$99,275
Less: operating expenses ( $(\$0.50 \times 95,000) + \$10,000$ )	<u>57,500</u>
Net income	<u>\$41,775</u>

Diff: 1 Type: ES

Skill: Apply

Objective: LO 6-2

78) Christy Enterprises reports the year-end information from 2015 as follows:

Sales (100,000 units)	\$500,000
Less: Cost of goods sold	<u>300,000</u>
Gross profit	200,000
Operating expenses (includes \$20,000 of depreciation)	<u>120,000</u>
Net income	<u>\$ 80,000</u>

Christy is developing the 2016 budget. In 2016 the company would like to increase selling prices by 10%, and as a result expects a decrease in sales volume of 5%. Cost of goods sold as a percentage of sales is expected to increase to 62%. Other than depreciation, all operating costs are variable.

Required:

Prepare a budgeted income statement for 2016.

Answer: Christy Enterprises  
Budgeted Income Statement  
For the Year 2016

Sales ( $95,000 \times \$5.50$ )	\$522,500
Cost of goods sold ( $2016 \text{ sales} \times 62\%$ )	<u>323,950</u>
Gross profit	198,550
Less: Operating expenses [ $(\$1.00 \times 95,000) + \$20,000$ ]	<u>115,000</u>
Net income	<u>\$ 83,550</u>

Diff: 2 Type: ES

Skill: Apply

Objective: LO 6-2

79) Shamokin Manufacturing produces two products, Big and Bigger. Shamokin expects to sell 20,000 units of Big and 10,000 units of Bigger. Shamokin plans on having an ending inventory of 4,000 units of Big and 2,000 units of Bigger. Currently, Shamokin has 1,000 units of Big in its inventory and 800 units of Bigger. Each product requires two labour operations: molding and polishing. Product Big requires one hour of molding time and one hour of polishing time. Product Bigger requires one hour of molding time and two hours of polishing time. The direct labour rate for molders is \$20 per molding hour, and the direct labour rate for polishers is \$25 per polishing hour.

Required:

Prepare a direct labour budget in hours and dollars for each product.

Answer: Desired Production:

	<b>Big</b>	<b>Bigger</b>	<b>Total</b>
Expected sales	20,000	10,000	
Desired ending inventory	<u>4,000</u>	<u>2,000</u>	
Production needs	24,000	12,000	
Less: beginning inventory	<u>1,000</u>	<u>800</u>	
Desired production	<u>23,000</u>	<u>11,200</u>	
Direct Labour Budget for Big:	Molding	Polishing	
Desired Production of Big	23,000	23,000	
Hours of Labour Required per unit	1	1	
Total Hours of Labour Required	23,000	23,000	
Direct Labour Rate	<u>\$20</u>	<u>\$25</u>	
Cost of Direct Labour for Big	\$460,000	\$575,000	\$1,035,000
Direct Labour Budget for Bigger:	Molding	Polishing	
Desired Production of Bigger	11,200	11,200	
Hours of Labour Required per unit	1	2	
Total Hours of Labour Required	11,200	22,400	
Direct Labour Rate	<u>\$20</u>	<u>\$25</u>	
Cost of Direct Labour for Bigger	\$224,000	\$560,000	<u>\$784,000</u>
Total Direct Labour Costs	<u>\$684,000</u>	<u>\$1,135,000</u>	<u>\$1,819,000</u>

Diff: 3 Type: ES

Skill: Apply

Objective: LO 6-2

80) Discuss the importance of the sales forecast and items that influence its accuracy.

Answer: All other budgets are based on information from the sales forecast.

The sales forecast is a challenge to predict because its accuracy depends on the ability to forecast the state of the general economy, changes in the industry, actions of the competition, and developments in technology. Each of these items affects individual products or product lines and are quantified and aggregated to obtain the sales forecast.

Diff: 2 Type: ES

Skill: Understand

Objective: LO 6-2

81) What is budgetary slack?

What are the pros and cons of building slack into the budget from the point of view of (a) an employee and (b) a senior manager?

Answer: Budgetary slack refers to the practice of underestimating budgeted revenues (or overestimating budgeted costs) to make budgeted targets more easily achievable.

**Employees' point of view:** There are two benefits from this point of view. First, the employee may be able to obtain excess resources to achieve desired goals. This may take a lot of pressure off the employee and reduce job anxiety. Second, the employee may be able to convince senior management to lower their work expectations of him or her. This may also lead to lower pressure on the employee to perform. Both of these types of slack building are designed to reduce job stress for the employee. However, if incentives are graduated in such a way that achieving higher and higher goals provides the employee with more and more compensation in the form of bonuses, then the employee may lose income by selecting lower goals.

**Senior management's point of view:** When employees build in slack, they are either using unnecessary resources to achieve a goal that they should have been able to achieve with fewer resources, or they are understating their performance capabilities. Thus, the organization is either not running as efficiently as it can, or is losing potential productivity from employees who are not working as hard as they can. In some cases, senior management may believe that employees build in slack to relieve job pressure. If burnout of employees has been happening in the organization, then perhaps senior management may be more forgiving and view some slack building as necessary to keep their employees from quitting.

Diff: 3 Type: ES

Skill: Understand

Objective: LO 6-2

6.3 Prepare a cash budget.

1) Beginning with the cash budget, each budget supporting the master budget follows step by step in logical fashion.

Answer: FALSE

Explanation: Beginning with the sales budget...

Diff: 1 Type: TF

Skill: Remember

Objective: LO 6-3

2) The cash budget helps avoid unnecessary idle cash and at the same time maintain minimum cash balances.

Answer: TRUE

Diff: 1 Type: TF

Skill: Remember

Objective: LO 6-3

3) Cash receipts depend on collections of accounts payable, cash sales, and miscellaneous sources, such as rental income.

Answer: FALSE

Explanation: ...collections of accounts receivable...

Diff: 1 Type: TF

Skill: Remember

Objective: LO 6-3

4) The budgeted balance sheet must be prepared prior to the cash budget so that the required cash balance can be determined.

Answer: FALSE

Explanation: The reverse is true

Diff: 2 Type: TF

Skill: Remember

Objective: LO 6-3

5) The cash cycle describes the movement of cash from producing inventories to receivables from sales and back to cash from collections.

Answer: TRUE

Diff: 2 Type: TF

Skill: Remember

Objective: LO 6-3

6) Accrual accounting in compliance with ASPE/IFRS results in these timing differences between when a benefit or obligation must be reported for financial accounting purposes and when the cash inflow or outflow actually occurs.

Answer: TRUE

Diff: 2 Type: TF

7) Boone Hobbies, a wholesaler, has a sales budget for next month of \$600,000. Cost of units sold is expected to be 40 percent of sales. All units are paid for in the month following purchase. The beginning inventory of units is \$20,000, and an ending amount of \$24,000 is desired. Beginning accounts payable is \$152,000.

Boone Hobbies should budget cash used to pay accounts payable for the month totalling

- A) \$244,000.
- B) \$240,000.
- C) \$156,000.
- D) \$152,000.
- E) \$148,600.

Answer: D

Explanation: D) \$152,000 as given

Diff: 2 Type: MC

Skill: Apply

Objective: LO 6-3

*Use the information below to answer the following question(s).*

Copper Corporation has the following sales budget for the last six months of 2016:

July	\$200,000	October	\$180,000
August	160,000	November	200,000
September	220,000	December	188,000

Historically, the cash collection of sales has been as follows:

- 65 percent of sales collected in month of sale,
- 25 percent of sales collected in month following sale,
- 8 percent of sales collected in second month following sale, and
- 2 percent of sales is uncollectable.

8) Cash collections for September are

- A) \$143,000.
- B) \$161,400.
- C) \$199,000.
- D) \$204,000.
- E) \$240,000.

Answer: C

Explanation: C)  $(\$220,000 \times 0.65) + (\$160,000 \times 0.25) + (\$200,000 \times 0.08) = \$199,000$

Diff: 2 Type: MC

Skill: Apply

Objective: LO 6-3



9) What is the ending balance of accounts receivable at the end of September assuming uncollectible balance is written off in the third month after the sale?

- A) \$199,000
- B) \$97,000
- C) \$89,800
- D) \$93,000
- E) \$88,000

Answer: D

Explanation: D)  $(\$220,000 \times 0.35) + (\$160,000 \times 0.10) = \$93,000$

Diff: 3 Type: MC

Skill: Apply

Objective: LO 6-3

10) Cash collections for October are

- A) \$117,000.
- B) \$184,800.
- C) \$199,000.
- D) \$176,400.
- E) \$174,000.

Answer: B

Explanation: B)  $(\$180,000 \times 0.65) + (\$220,000 \times 0.25) + (\$160,000 \times 0.08) = \$184,800$

Diff: 2 Type: MC

Skill: Apply

Objective: LO 6-3

11) The cash budget is a schedule of expected cash receipts and disbursements that

- A) requires an aging of accounts receivable and accounts payable.
- B) is a self-liquidating cycle.
- C) is prepared immediately after the sales forecast.
- D) predicts the effect on the cash position at given levels of operations.
- E) is prepared by the organization's bank.

Answer: D

Diff: 1 Type: MC

Skill: Remember

Objective: LO 6-3

Use the information below to answer the following question(s).

Grinnell Manufacturing Company has the following information for 2015:

<u>Month</u>	<u>Budgeted Sales</u>
January	\$76,000
February	85,000
March	92,000
April	79,000

Budget Expenses per Month

Wages	\$15,000
Advertising	12,000
Depreciation	3,000
Other	4 percent of sales

Note: All cash expenses are paid as incurred; Collections from sales are 50% in the month of sale and 50% in the month following the sale; December 2014 sales were \$110,000.

12) What is the expected total cash disbursements for expenses in February?

- A) \$33,400
- B) \$30,000
- C) \$30,200
- D) \$30,400
- E) \$27,000

Answer: D

Explanation: D)  $(\$85,000 \times 0.04) + \$15,000 + \$12,000 = \$30,400$

Diff: 2 Type: MC

Skill: Apply

Objective: LO 6-3

13) What are the expected total cash receipts for February?

- A) \$118,500
- B) \$89,000
- C) \$88,500
- D) \$85,000
- E) \$80,500

Answer: E

Explanation: E)  $(\$76,000 \times 0.5) + (\$85,000 \times 0.5) = \$80,500$

Diff: 2 Type: MC

Skill: Apply

Objective: LO 6-3

14) What is the budgeted net operating income for the first quarter of 2015?

- A) \$132,640
- B) \$135,280
- C) \$172,160
- D) \$123,640
- E) \$140,560

Answer: A

Explanation: A)  $(\$76,000 + \$85,000 + \$92,000) - [3 \times ((\$76,000 + \$85,000 + \$92,000) \times .04) + \$30,000] = \$132,640$

Diff: 2 Type: MC

Skill: Apply

Objective: LO 6-3

*Answer the following question(s) using the information below.*

The following information pertains to Tiffany Company:

<u>Month</u>	<u>Sales</u>	<u>Purchases</u>
January	\$30,000	\$16,000
February	\$40,000	\$20,000
March	\$50,000	\$28,000

Cash is collected from customers in the following manner:

- Month of sale 30%
- Month following the sale 70%

40% of purchases are paid for in cash in the month of purchase, and the balance is paid the following month.

Labour costs are 20% of sales. Other operating costs are \$15,000 per month (including \$4,000 of depreciation). Both of these are paid in the month incurred. The cash balance on March 1 is \$4,000. A minimum cash balance of \$3,000 is required at the end of the month. Money can be borrowed in multiples of \$1,000.

15) How much cash will be collected from customers in March?

- A) \$47,000
- B) \$45,000
- C) \$50,000
- D) \$33,000
- E) \$43,000

Answer: E

Explanation: E)  $(\$40,000 \times 70\%) + (\$50,000 \times 30\%) = \$43,000$

Diff: 2 Type: MC

Skill: Apply

Objective: LO 6-3

16) How much cash will be paid to suppliers in March?

- A) \$23,200
- B) \$28,000
- C) \$44,000
- D) \$24,800
- E) \$17,600

Answer: A

Explanation: A)  $(\$20,000 \times 60\%) + (\$28,000 \times 40\%) = \$23,200$

Diff: 2 Type: MC

Skill: Apply

Objective: LO 6-3

17) How much cash will be disbursed in total in March?

- A) \$21,000
- B) \$34,200
- C) \$48,200
- D) \$44,200
- E) \$45,800

Answer: D

Explanation: D)  $(\$20,000 \times 60\%) + (\$28,000 \times 40\%) + (\$50,000 \times 20\%) + (\$15,000 - \$4,000) = \$44,200$

Diff: 2 Type: MC

Skill: Apply

Objective: LO 6-3

18) What is the ending cash balance for March after borrowing, if required?

- A) \$4,000
- B) \$3,800
- C) \$3,200
- D) \$2,800
- E) \$3,000

Answer: B

Explanation: B)  $\$4,000 + \$43,000 - \$44,200 + \$1,000 = \$3,800$

Diff: 3 Type: MC

Skill: Apply

Objective: LO 6-3

*Answer the following question(s) using the information below.*

The following information pertains to Hepburn Company:

<u>Month</u>	<u>Sales</u>	<u>Purchases</u>
January	\$60,000	\$32,000
February	\$80,000	\$40,000
March	\$100,000	\$56,000

Cash is collected from customers in the following manner:

- Month of sale 30%
- Month following the sale 70%

40% of purchases are paid for in cash in the month of purchase, and the balance is paid the following month.

Labour costs are 20% of sales. Other operating costs are \$30,000 per month (including \$8,000 of depreciation). Both of these are paid in the month incurred. The cash balance on March 1 is \$8,000. A minimum cash balance of \$6,000 is required at the end of the month. Money can be borrowed in multiples of \$1,000.

19) How much cash will be collected from customers in March?

- A) \$92,000
- B) \$90,000
- C) \$100,000
- D) \$86,000
- E) \$66,000

Answer: D

Explanation: D)  $(\$80,000 \times 70\%) + (\$100,000 \times 30\%) = \$86,000$

Diff: 2 Type: MC

Skill: Apply

Objective: LO 6-3

20) How much cash will be paid to suppliers in March?

- A) \$56,000
- B) \$46,400
- C) \$88,000
- D) \$49,600
- E) \$35,200

Answer: B

Explanation: B)  $(\$40,000 \times 60\%) + (\$56,000 \times 40\%) = \$46,400$

Diff: 2 Type: MC

Skill: Apply

Objective: LO 6-3

21) How much cash will be disbursed in total in March?

- A) \$88,400
- B) \$42,000
- C) \$68,400
- D) \$96,400
- E) \$91,600

Answer: A

Explanation: A)  $(\$40,000 \times 60\%) + (\$56,000 \times 40\%) + (\$100,000 \times 20\%) + (\$30,000 - \$8,000) = \$88,400$

Diff: 2 Type: MC

Skill: Apply

Objective: LO 6-3

22) What is the ending cash balance for March after borrowing, if required?

- A) \$8,000
- B) \$6,400
- C) \$5,600
- D) \$6,000
- E) \$6,600

Answer: E

Explanation: E)  $\$8,000 + \$86,000 - \$88,400 + \$1,000 = \$6,600$

Diff: 3 Type: MC

Skill: Apply

Objective: LO 6-3

*Answer the following question(s) using the information below.*

Fiscal Company has the following sales budget for the last six months of 2013:

July	\$100,000	October	\$90,000
August	80,000	November	100,000
September	110,000	December	94,000

Historically, the cash collection of sales has been as follows:

65% of sales collected in the month of sale,

25% of sales collected in the month following the sale,

8% of sales collected in the second month following the sale, and

2% of sales are uncollectible.

23) Cash collections for September are

A) \$71,500

B) \$86,700

C) \$110,000

D) \$102,000

E) \$99,500

Answer: E

Explanation: E)  $(\$110,000 \times 0.65) + (\$80,000 \times 0.25) + (\$100,000 \times 0.08) = \$99,500$

Diff: 2 Type: MC

Skill: Apply

Objective: LO 6-3

24) What is the ending balance of accounts receivable for September, assuming uncollectible balances are written off during the second month following the sale?

A) \$99,500

B) \$48,500

C) \$44,900

D) \$46,500

E) \$54,500

Answer: D

Explanation: D)  $(\$110,000 \times 0.35) + (\$80,000 \times 0.10) = \$46,500$

Diff: 3 Type: MC

Skill: Apply

Objective: LO 6-3

25) Perry Company has gathered the following information:

April 30, cash balance	\$90,000
Dividends paid in May	\$24,000
Cash expenditures in May for operating expenses	\$73,600
Amortization expense in May	\$9,000
Cash collections in May	\$178,000
Merchandise purchases paid in cash in May	\$112,400
Purchased equipment for cash in May	\$35,000

Perry desires to keep a minimum cash balance of \$20,000.

Required:

Prepare a cash budget for May, and indicate whether or not Perry meets minimum cash requirements.

Answer:           Cash Budget  
                          for May

Beginning cash balance	\$90,000
Cash collections	<u>178,000</u>
Total cash available	\$268,000

Cash disbursements:

Merchandise purchases	\$112,400	
Operating expenses	73,600	
Equipment purchase	35,000	
Payment of dividends	<u>24,000</u>	<u>245,000</u>
Ending cash balance		<u>\$23,000</u>

The ending cash of \$23,000 exceeds the minimum cash requirement of \$20,000.

Diff: 3   Type: ES

Skill: Apply

Objective: LO 6-3



26) Berry Company has gathered the following information:

April 30, cash balance	\$65,000
Dividends paid in May	\$12,000
Cash expenditures in May for operating expenses	\$76,600
Amortization expense in May	\$13,000
Cash collections in May	\$152,300
Merchandise purchases paid in cash in May	\$121,900
Purchased equipment for cash in May	\$56,000

Berry desires to keep a minimum cash balance of \$15,000.

Required:

Prepare a cash budget for May, and indicate whether or not Berry meets minimum cash requirements.

Answer:           Cash Budget  
                          for May

Beginning cash balance	\$65,000
Cash collections	<u>152,300</u>
Total cash available	\$217,300

Cash disbursements:

Merchandise purchases	\$121,900	
Operating expenses	76,600	
Equipment purchase	56,000	
Payment of dividends	<u>12,000</u>	<u>266,500</u>
Cash balance before borrowing		\$(49,200)
Borrow		<u>64,200</u>
Ending cash balance		<u>\$15,000</u>

Diff: 3   Type: ES

Skill: Apply

Objective: LO 6-3

27) Duffy Corporation has prepared the following sales budget:

<u>Month</u>	<u>Cash Sales</u>	<u>Credit Sales</u>
May	\$16,000	\$68,000
June	20,000	80,000
July	18,000	74,000
August	24,000	92,000
September	22,000	76,000

Collections are 40% in the month of sale, 45% in the month following the sale, and 10% two months following the sale. The remaining 5% is expected to be uncollectible.

Required:

Prepare a schedule of cash collections for July through September.

Answer:	<u>July</u>	<u>August</u>	<u>September</u>	<u>Total</u>
Cash sales	\$18,000	\$24,000	\$22,000	\$64,000

*Collections of credit sales from:*

Current month	29,600	36,800	30,400	96,800
Previous month	36,000	33,300	41,400	110,700
Two months ago	6,800	8,000	7,400	22,200
Total collections	<u>\$90,400</u>	<u>\$102,100</u>	<u>\$101,200</u>	<u>\$293,700</u>

Diff: 3 Type: ES

Skill: Apply

Objective: LO 6-3

28) The following information pertains to Amigo Corporation:

<u>Month</u>	<u>Sales</u>	<u>Purchases</u>
July	\$30,000	\$10,000
August	34,000	12,000
September	38,000	14,000
October	42,000	16,000
November	48,000	18,000
December	60,000	20,000

Cash is collected from customers in the following manner:

Month of sale*	30%
Month following sale	50%
Two months following sale	15%
Amount uncollectible	5 %

\* Customers paying in the month of sale receive a 2% cash discount.

40% of purchases are paid for in cash in the month of purchase, and the balance is paid the following month.

Required:

- Prepare a summary of cash collections for the 4th quarter.
- Prepare a summary of cash disbursements for the 4th quarter.

Answer:

- Cash collections Oct \$36,448 + Nov \$40,812 + Dec \$47,940 = \$125,200

	<u>October</u>	<u>November</u>	<u>December</u>
August	\$5,100	0	0
September	19,000	5,700	0
October	12,348	21,000	6,300
November	0	14,112	24,000
December	0	0	17,640
	<u>\$36,448</u>	<u>\$40,812</u>	<u>\$47,940</u>

- Cash disbursements Oct \$14,800 + Nov \$16,800 + Dec \$18,800 = \$50,400

	<u>October</u>	<u>November</u>	<u>December</u>
September	8,400	0	0
October	6,400	9,600	0
November	0	7,200	10,800
December	0	0	8,000
	<u>\$14,800</u>	<u>\$16,800</u>	<u>\$18,800</u>

Diff: 3 Type: ES

Skill: Apply

Objective: LO 6-3

#### 6.4 Contrast responsibility against controllability.

1) Responsibility accounting is a budgeting system that measures the plans and objectives of managers.

Answer: FALSE

Explanation: Responsibility accounting is a system that measures the plans (by budgets) and actions (by actual results) of each responsibility centre.

Diff: 2 Type: TF

Skill: Remember

Objective: LO 6-4

2) Performance reports for responsibility centres may include uncontrollable costs if they are segregated from controllable costs.

Answer: TRUE

Diff: 1 Type: TF

Skill: Remember

Objective: LO 6-4

3) A controllable cost is a cost that is not subject to the influence of a given manager of a given responsibility centre for a given time span.

Answer: FALSE

Explanation: A controllable cost is any cost that is primarily subject to the authorization of a specific manager of a specific responsibility centre for a specific time span.

Diff: 1 Type: TF

Skill: Remember

Objective: LO 6-4

4) Few costs are clearly under the sole influence of one manager.

Answer: TRUE

Diff: 1 Type: TF

Skill: Remember

Objective: LO 6-4

5) Responsibility accounting focuses on information and knowledge, not control.

Answer: TRUE

Diff: 1 Type: TF

Skill: Remember

Objective: LO 6-4

6) In a profit centre the manager is responsible for investments, revenues and expenses.

Answer: FALSE

Explanation: A profit centre includes revenue and costs

Diff: 1 Type: TF

Skill: Remember

Objective: LO 6-4

7) Variances sometimes signal to managers that their strategies are ineffective.

Answer: TRUE

Diff: 2 Type: TF

Skill: Remember

Objective: LO 6-4

8) The major types of responsibility centres are

A) profit, non-profit, and governmental.

B) profit, sales, and direct cost.

C) revenue, profit, income, and cost.

D) revenue, profit, cost, and investment.

E) profit, indirect cost, and investment.

Answer: D

Diff: 1 Type: MC

Skill: Remember

Objective: LO 6-4

9) The reason for tracing a cost in responsibility accounting is to determine which of the following?

A) whether it is fixed or variable

B) who has the best knowledge about why the costs arose

C) what activity caused the costs to be incurred

D) either who has the best knowledge about why the costs arose or, what activity caused the costs to be incurred

E) whether it is production or administration

Answer: D

Diff: 1 Type: MC

Skill: Remember

Objective: LO 6-4

10) Responsibility accounting is a system that

A) deals mainly with revenues.

B) requires subdividing all management levels.

C) is most appropriate at the top levels of the organization.

D) is closely tied to the master budget.

E) measures the plans and actions of responsibility centres.

Answer: E

Diff: 1 Type: MC

Skill: Remember

Objective: LO 6-4

11) Which of the following statements is TRUE concerning controllability of costs?

- A) Fixed costs are controllable costs.
- B) Controllable costs are easy to identify with much accuracy.
- C) Senior managers rarely differ in their reliance on controllable costs for performance measurement.
- D) All costs are controllable, given a sufficiently long time period.
- E) Most costs are under the sole influence of any one manager.

Answer: D

Diff: 2 Type: MC

Skill: Understand

Objective: LO 6-4

12) A criticism of traditional budgeting is "Excessive reliance on extrapolating past trends." Which of the following is a proposal for change to address this criticism?

- A) Use activity-based budgeting.
- B) Balance financial aspects with nonfinancial.
- C) Signal to all employees the need for continuous improvement.
- D) Adopt a cross-functional approach.
- E) Link budgeting explicitly to strategy.

Answer: E

Diff: 1 Type: MC

Skill: Remember

Objective: LO 6-4

13) One of the criticisms of traditional budgeting is *not using budgets to evaluate performance until the end of the budget period*. Which of the following proposals for change would address this criticism?

- A) Link budgeting explicitly to strategy.
- B) Use Kaizen budgeting to guide areas for cost reduction before the end of the budget period.
- C) Inform employees of the need for continuous improvement in performance within the budget period.
- D) Balance financial aspects with non-financial aspects (such as quality and time).
- E) Rely strictly on extrapolation of past performance.

Answer: C

Diff: 2 Type: MC

Skill: Remember

Objective: LO 6-4

14) Mannock Company budgeted \$400,000 for employee training, but actually spent only \$300,000. Which of the following statements is the best course of action for management to take in this instance?

- A) Because this \$100,000 variance is favourable, management does not need to investigate further.
- B) Management will investigate this \$100,000 favourable variance to ensure that the cost savings do not reflect a reduction in programming.
- C) Management will investigate this \$100,000 favourable variance to try to identify and correct the problem with the budgeting system.
- D) Management should not investigate every variance, especially the favourable ones.
- E) Management should hold a meeting with the budget department and the training department to ensure that next year's budget is more realistic.

Answer: B

Diff: 2 Type: MC

Skill: Understand

Objective: LO 6-4

15) Disk Company was very profitable for the first ten years of its existence, but the company has fallen on hard times with the growth of compact disks. In 2007 Jean Adams was appointed head of the Product Research Department. She began a number of product development projects. Although the department has developed several good ideas that led to the introduction of several promising products, Ms. Adams was criticized for poor cost control. The financial performance reports of the department under Ms. Adams leadership were consistently unfavourable. Management was quite concerned about cost control because profits for the company were low and the cash budget indicated that additional borrowing would be required during the next year.

Because of her inability to control costs, Ms. Adams was relieved of her responsibilities in 2008 and Fran Jones became head of the department. Ms. Jones promised to improve performance of Product Research and scaled back the developmental activities to obtain favourable financial performance. By the end of 2008 Ms. Jones was showing a favourable financial variance.

Required:

If the Product Research Department is classified as a responsibility centre, what unique problems are associated with evaluating its financial performance?

Answer: Because there does not appear to be any clearly defined relationship between effort and accomplishment, the department should be classified as a cost centre. Because of the absence of a relationship between effort and accomplishment, the financial performance of a discretionary cost centre cannot be evaluated with the aid of flexible budgeting. It is even difficult to evaluate the financial performance of such a centre by any means. The best monetary evaluation is based on a comparison of the actual and budgeted costs for each given period and with other prior periods.

Diff: 2 Type: ES

Skill: Understand

Objective: LO 6-4

16) Rick Christensen is the new division manager of Fastfood Sales. His division is considered a responsibility centre, and he has control over all costs and revenue of the division. His predecessor had been dismissed from the company because he could not keep the revenues and costs with acceptable variances on a quarterly basis. However, the former manager had relatively good annual reports. Christensen is very concerned about the situation because Fastfood has a somewhat seasonal business and it is very difficult to keep sales up during the winter months. He is considering changing jobs after only a few months but wants some advice as to the likelihood that he will be able to keep revenue and costs under control throughout the year.

Required:

Distinguish between controllable and uncontrollable aspects of revenue and costs. Can a manager totally control all revenue and costs? Why or why not?

Answer: Although no revenue or cost can be totally controlled, a cost or revenue is a controllable item when a manager has significant influence over the amount of a cost or revenue, for a given time span. It is uncontrollable if this is not the case. A manager's ability to influence costs and revenues depends on two factors: (1) the manager's level of authority and (2) the time period involved.

Costs and revenue contracts, the economic costs of disposing of fixed assets, and the economy are three conditions that are likely to affect the period of time during which an item is not controllable. In the case of Mr. Christensen, another factor, different seasons, can have some influence. He should encourage the company not to give much weight to quarterly reports but concentrate on what he has done for an entire accounting period. Short-run evaluations can often be unfair to the person being evaluated.

Diff: 2 Type: ES

Skill: Understand

Objective: LO 6-4

17) Describe some of the drawbacks of using the operating budget as a control device.

Answer: When the operating budget is used as a control device it can lead to behaviour that is actually detrimental to the organization.

The major problem with the budget performance report is not the report itself, but rather the way it is used. In general, managers are rewarded for favourable variances, and disciplined for unfavourable variances. This encourages managers to set lax standards for both sales and costs so favourable variances result. It can also lead to "budget games."

Another drawback is that once the budget is established, if there is any variance between budget and actual, it is assumed to be because of actual. However, as we know, the budget will never be totally accurate due to the uncertainties of predicting the future.

If used properly, however, the operating budget can be a tremendous benefit to any company.

Diff: 2 Type: ES

Skill: Understand

Objective: LO 6-4



18) How is budgeting for a multinational corporation different than budgeting for a corporation that is strictly domestic?

Answer: Budgeting for a multinational corporation is made far more complex than budgeting for a domestic corporation because the multinational corporation often has subunits operating in many different countries, resulting in less familiar business environments and many different currencies.

Multinational corporations need to understand many different business environments with significant political, legal, and economic environments.

Multinational companies earn their revenues and incur their expenses in many different currencies, and must report their results a single currency. Additionally, management accountants in different countries need to budget for foreign exchange rates and anticipate changes that might take place during the year in the face of constantly fluctuating exchange rates.

Diff: 2 Type: ES

Skill: Understand

Objective: LO 6-4

19) Describe the four types of responsibility centres. Give a specific example of each of the four types of responsibility centres.

Answer:

1. Cost centre: In a cost centre, managers are accountable for costs only.
2. Revenue centre: In a revenue centre, managers are accountable primarily for revenues. Many times, revenue centres are sales territories.
3. Profit centre: In a profit centre, managers are accountable for both revenues and costs and, therefore, profits.
4. Investment centre: In an investment centre, managers are accountable for investments, revenues, and costs. Investment centres are generally large divisions of a corporation.

Student examples will vary.

Diff: 2 Type: ES

Skill: Understand

Objective: LO 6-4

20) When applied to budgets, responsibility accounting provides feedback to top management about the performance of different responsibility-centre managers relative to the budget. Name and briefly describe the three ways, presented in the textbook, that properly used variances can be helpful.

Answer:

1. *Early Warning*. Variances alert managers early to events neither easily nor immediately evident. Managers can take corrective actions or exploit the available opportunities.
2. *Performance evaluation*. Variances inform managers about how well the company has performed in implementing its' strategies.
3. *Evaluating strategy*. Variances sometimes signal to managers that their strategies are ineffective.

Diff: 2 Type: ES

Skill: Remember

Objective: LO 6-4

6.5 Distinguish among sensitivity analysis, Kaizen budgeting, and activity-based budgeting.

1) Sensitivity analysis helps to evaluate outcomes from changes in data or assumptions.

Answer: TRUE

Diff: 2 Type: TF

Skill: Remember

Objective: LO 6-5

2) Kaizen budgeting is a budgetary approach that explicitly incorporates continuous improvement during the budget period into the resultant budget numbers.

Answer: TRUE

Diff: 1 Type: TF

Skill: Remember

Objective: LO 6-5

3) The objective of activity-based budgeting is to refine the budgeting process by partitioning indirect costs into different homogeneous activity cost pools.

Answer: TRUE

Diff: 2 Type: TF

Skill: Remember

Objective: LO 6-5

4) The improvements gained through Kaizen budgeting arise from large changes made during the budget period as a result of executive leadership.

Answer: FALSE

Explanation: The improvements gained through Kaizen budgeting arise from many small changes made during the budget period as a result of employees' suggestions.

Diff: 2 Type: TF

Skill: Remember

Objective: LO 6-5

5) The value of budgets to managers in their strategic analysis and planning is enhanced by

A) value based budgeting.

B) conducting sensitivity analysis.

C) the lines of responsibility in the value chain.

D) the current organizational structure.

E) the operating plan.

Answer: B

Diff: 1 Type: MC

Skill: Remember

Objective: LO 6-5

- 6) Kaizen budgeting, adapted from the Japanese, provides that
- A) activity costs are budgeted based on current practices, methods, and costs.
  - B) continuous budgeting methods are employed.
  - C) target pricing is key to budget preparation.
  - D) continuous improvements are incorporated into the budget.
  - E) a rolling budget is employed to keep a handle on management.

Answer: D

Diff: 1 Type: MC

Skill: Remember

Objective: LO 6-5

- 7) The objective of activity-based budgeting is
- A) to allow multiple activities to be used as cost drivers rather than just one item such as direct labour hours.
  - B) to compute the cost of performing activities.
  - C) to refine the budgeting process by assigning indirect costs into activity cost pools.
  - D) to classify costs by functional area and assign them to related activities.
  - E) to classify costs as to whether they are value added or non-value added.

Answer: C

Diff: 2 Type: MC

Skill: Understand

Objective: LO 6-5

- 8) Activity-based budgeting is a strategy
- A) used to determine production targets.
  - B) that requires budgeting each functional organizational unit.
  - C) that requires determining the budgetary slack for the activity being measured.
  - D) that does not require an understanding of value added activities.
  - E) that focuses on the cost of activities necessary to produce and sell products and services.

Answer: E

Diff: 2 Type: MC

Skill: Understand

Objective: LO 6-5

*Answer the following question(s) using the information below.*

Sherry and John Enterprises are using the Kaizen approach to budgeting for 2016. The budgeted income statement for January 2016 is as follows:

Sales (168,000 units)	\$1,000,000
Less: Cost of goods sold	<u>600,000</u>
Gross margin	\$ 400,000
Operating expenses (includes \$50,000 of fixed costs)	<u>300,000</u>
Operating income	<u>\$ 100,000</u>

Under the Kaizen approach, cost of goods sold and variable operating expenses are budgeted to decline by 1% per month.

9) What is budgeted gross margin for March 2016?

- A) \$392,040
- B) \$396,000
- C) \$408,040
- D) \$411,940
- E) \$412,000

Answer: D

Explanation: D)  $\$1,000,000 - (\$600,000 \times .99 \times .99) = \$411,940$

Diff: 2 Type: MC

Skill: Apply

Objective: LO 6-5

10) Stark Company is developing its budgets for 2016 and for the first time will use the Kaizen approach. The initial 2016 income statement, based on static data from 2015 is as follows:

Sales (300,000 units)	\$450,000
Less: cost of goods sold	<u>300,000</u>
Gross margin	\$150,000
Operating expenses (includes \$40,000 of amortization)	<u>120,000</u>
Net income	<u>\$30,000</u>

Selling prices for 2016 are expected to increase by 6 percent, and sales volume in units will decrease by 10 percent. The cost of goods sold as estimated by the Kaizen approach will decline by 10 percent per unit. Other than amortization, all other operating costs are expected to decline by 5 percent.

Required:

Prepare a Kaizen-based budgeted income statement for 2016.

Answer: Sales ( $270,000 \times \$1.59$ ) \$429,300

Less: COGS ( $270,000 \times \$0.90$ ) 243,000

Gross margin \$186,300

Operating expenses ( $\$40,000 + \$76,000$ ) 116,000

Net income \$70,300

Diff: 3 Type: ES

Skill: Apply

Objective: LO 6-5

11) Jermaine Company is developing its budgets for 2016 and for the first time will use the Kaizen approach. The initial 2016 income statement, based on static data from 2015, is as follows:

Sales (200,000 units)	\$300,000
Less: cost of goods sold	<u>200,000</u>
Gross margin	\$100,000
Operating expenses (includes \$20,000 of amortization)	<u>80,000</u>
Net income	<u>\$20,000</u>

Selling prices for 2016 are expected to increase by 8 percent, and sales volume in units will decrease by 10 percent. The cost of goods sold as estimated by the Kaizen approach will decline by 10 percent per unit. Other than amortization, all other operating costs are expected to decline by 5 percent.

Required:

Prepare a Kaizen-based budgeted income statement for 2016.

Answer: Sales ( $180,000 \times \$1.62$ ) \$291,600

Less: COGS ( $180,000 \times \$0.90$ ) 162,000

Gross margin \$129,600

Operating expenses ( $\$20,000 + \$57,000$ ) 77,000

Net income \$52,600

Diff: 3 Type: ES

Skill: Apply

Objective: LO 6-5

12) Allscott Company is developing its budgets for 2016 and for the first time will use the Kaizen approach. The initial 2016 income statement, based on static data from 2015, is as follows:

Sales (140,000 units)	\$420,000
Less: Cost of goods sold	<u>280,000</u>
Gross margin	\$140,000
Operating expenses (includes \$28,000 of depreciation)	<u>112,000</u>
Net income	<u>\$28,000</u>

Selling prices for 2016 are expected to increase by 8%, and sales volume in units will decrease by 10%. The cost of goods sold as estimated by the Kaizen approach will decline by 10% per unit. Other than depreciation, all other operating costs are expected to decline by 5%.

Required:

Prepare a Kaizen-based budgeted income statement for 2016.

Answer: Sales ( $126,000 \times \$3.24$ ) \$408,240

Less: COGS ( $126,000 \times \$1.80$ ) 226,800

Gross margin \$181,440

Operating expenses ( $\$28,000 + \$79,800$ ) 107,800

Net income \$73,640

Diff: 3 Type: ES

Skill: Apply

Objective: LO 6-5

13) Brad Corporation is developing its budgets for 2016 and for the first time will use the Kaizen approach. The initial 2016 income statement, based on static data from 2015, is as follows:

Sales (240,000 units)	\$720,000
Less: Cost of goods sold	<u>480,000</u>
Gross margin	\$240,000
Operating expenses (includes \$64,000 of fixed costs)	<u>192,000</u>
Net income	<u>\$48,000</u>

Under the Kaizen approach, cost of goods sold and variable operating expenses are budgeted to decline by 12%.

Required:

Prepare a Kaizen-based budgeted income statement for March of 2016.

Answer: Sales \$720,000

Less: Cost of goods sold ( $\$480,000 \times 0.88$ ) 422,400

Gross margin \$297,600

Operating expenses [ $(\$128,000 \times 0.88) + \$64,000$ ] 176,640

Net income \$120,960

Diff: 2 Type: ES

Skill: Apply

Objective: LO 6-5

14) Gimble Corporation is developing its budgets for 2016 and for the first time will use the Kaizen approach. The initial 2016 income statement, based on static data from 2015, is as follows:

Sales (320,000 units)	\$960,000
Less: Cost of goods sold	<u>672,000</u>
Gross margin	\$288,000
Operating expenses (includes \$49,000 of fixed costs)	<u>202,000</u>
Net income	<u>\$86,000</u>

Under the Kaizen approach, cost of goods sold and variable operating expenses are budgeted to decline by 9%.

Required:

Prepare a Kaizen-based budgeted income statement for March of 2016.

Answer: Sales \$960,000

Less: Cost of goods sold ( $\$672,000 \times 0.91$ ) 611,520

Gross margin \$348,480

Operating expenses [ $(\$153,000 \times 0.91) + \$49,000$ ] 188,230

Net income \$160,250

Diff: 2 Type: ES

Skill: Apply

Objective: LO 6-5

15) Describe the concept of kaizen budgeting.

Answer: Kaizen budgeting explicitly incorporates continuous improvement in cost reduction anticipated during the budget period. Much of the cost reduction arises from many small improvements rather than large one time improvements. Most of the improvements come from employee suggestions. Companies that employ kaizen budgeting create a culture where employee suggestions are valued, recognized, and rewarded.

Diff: 2 Type: ES

Skill: Remember

Objective: LO 6-5

16) Explain what is meant by sensitivity analysis in budgeting, and discuss how managers might use sensitivity analysis in practice.

Answer: Sensitivity analysis is a "what-if" technique that examines how results will change if the original predicted data are not achieved or if an underlying assumption changes. Managers often use financial planning models, which are mathematical representations of relationships among the factors that influence the master budget.

It is possible, using these models, to examine the financial impact of one or more parameters that influence a master budget, for example selling price and material cost. Management could consider three levels of each of these two parameters, resulting in nine scenarios of different selling prices and material costs. The financial model could then present a master budget based on each of these changes, and demonstrate the financial impact on the original data given changes in selling prices and/or material costs. Management could use these predictions to make contingency plans, change their strategies, or simply update the budgets as environmental conditions change.

Diff: 2 Type: ES

Skill: Understand

Objective: LO 6-5