SOLUTIONS Appendix 1

Multiple-Choice

1. c The three elements are: Internal control, statement of cash flows, and cash budgeting.
2. b
3. d The procedures are: The forecast, the budget, and budget comparison to actual (comparative budget.
4. d
5. d
6. a
7. b Many other items in a budget depend on a sales forecast, and collections from sales is the primary source of cash.
8. a
9. d
10. c Most of the cash inflows and outflows result from account items listed on an income statement.

Discussion Questions and Brief Exercises

1. A forecast is a prediction or an estimate. A budget is plan, using the forecast as the basis of the plan. Therefore, the management uses the forecast data, but makes changes that it believes can be implemented, with the final result becoming the budget.
2. a) Internal control is the most basic and important element. Internal control means the procedures and systems that are in place to safeguard cash from theft, error, and mismanagement.
   b) A statement of cash flows is a required financial statement that provides a management-level view (meaning overall or global view) of all the sources and uses of cash during a financial reporting period. The sources and uses are classified as operating, investing, and financing activities.
   c) A cash budget is a plan designed to: 1) identify and control the future inflows and outflows of cash by category and 2) maintain a plan of action to ensure that future cash flows are always adequate to maintain solvency and to achieve company goals.
3.

	Time Period 1	Time Period 2	Time Period 3
Beginning Cash Balance	$	$	$
Add: Cash Receipts			
....	$	$	$
....	$	$	$
Less: Cash Payments			
....	$	$	$
....	$	$	$
Ending Cash Balance	$	$	$

SOLUTIONS Appendix 1, continued

4. a) Prepare a forecast, b) prepare a cash budget, c) prepare a cash budget with comparison to actual amounts.
5. A fixed budget covers a contains a fixed number of time intervals. A rolling budget is continuously extended by adding a new time interval and dropping the latest time interval after it has conclued. As a result, a rolling budget continuously maintains the same number of future periods.
6. Depreciation and amortization are non-cash items in an income statement. They do not either provide cash or use cash.
7. A minimum cash balance should always be included in a cash forecast and cash budget as a means of protecting against unexpected decreases in cash. For example, if there is an unexpected decrease in customer receipts and/or an unexpected increase in expenditures, a reserve of cash will be available to avoid the need for additonal financing or to supplement the amount financed.

   A minimum cash balance amount depends on: 1) the uncertainty of inflows and outflows 2) the size of inflows and outflows 3) the speed of inflows and outflows. If these increase the minimum balance should increase. In general, in a situation when further financing and additional cuts in expenditures are not practical, the minimum cash balance should be at least the difference between expected future receipts and the lowest possible receipts.
8. The following factors will affect collections:
   a) The credit rating required and the ability of the customer to pay.
   b) Historical percentage uncollectible and changing economic conditions.
   c) Returns and allowances
   d) Discounts offered and other credit terms (such as cash on delivery)
9.

	Current Week	Next Week
Unit sales	8,400	9,200
Add: ending inventory	6,900	-------
Total inventory needed	15,300	-------
Less: beginning inventory	3,900	-------
Unit purchases	11,400	-------

- Forecast total purchase price: 11,400 × $3.25 = $37,050
- Forecast payment net of discount: $37,050 × .98 = $36,309.
- Forecast cost of goods sold: 8,400 $3.25 = $27,300 × .98 = $26,754

SOLUTIONS Appendix 1, continued

10. A typical cash budget financing section is illustrated below:

Financing activities
Borrowing
Stockholder/owner investment
Principal payments
Interest payments
Dividends/withdrawals
Net financing effect

Financing represents the sources of cash and requirements for cash that are not part of company operations or company investing and selling. The logic of a cash budget is to first plan for cash flow that results only from company activities that involve operations and purchases and sales of assets. After the cash balance that results from those activities is determined, management can then decide whether or not to include financing transactions in the budget plan. Therefore, the financing section is the last section of the budget format.

11.

	December Collections
From November:	
Cash sales:	----
On account:	
350 × .8 × $120 = $33,600 total	
$33,600 ×.96 ×.25 × .99 =	$7,983
From December:	
Cash sales:	
450 × .2 × $120 =	10,800
On account:	
450 ×.8 × $120 = $43,200 total	
$43,200 × .96 × .6 × .99 =	24,634
Total	$43,417

12. a. The numbers in **bold** indicate a new amount. These numbers indicate that the change affects not only the week ending 3/28, but also all subsequent periods, before other actions are considered.

SOLUTIONS

Appendix 1, continued

Cash Forecast: Weeks Ending March 7–April 11, 2017

		3/7	3/14	3/21	3/28	4/4	4/11
	Adjustment to actual	($350)					
1	Beginning cash balance	24,290	$26,590	$23,380	$6,890	**(3,020)**	**6,380**
2	**Cash receipts forecast**						
3	From sales to customers	40,290	41,640	46,690	**20,200**	33,430	39,870
4	From investments	-	-	-	-	500	-
5	From capital asset sales	-	-	-	-	-	-
6	Other	-	-	-	-	-	-
7	Total cash receipts	40,290	41,640	46,690	20,200	33,930	39,870
8	Total cash available	64,580	68,230	70,070	**27,090**	**30,910**	**46,250**
9	**Cash payments forecast**						
10	Merchandise purchases	34,480	34,590	22,200	18,930	23,830	26,810
11	Marketing – wage/commission	-	3,290	-	2,260	-	2,800
12	Marketing - other	100	200	2,500	400	200	1,500
13	Wages - General and Admin.	-	2,500	-	2,500	-	2,500
14	Other payroll expenses	-	1,020	-	950	-	960
15	Rent	-	-	-	3,200	-	-
16	Insurance	700	-	-	700	-	-
17	Supplies	360	150	200	120	50	150
18	Professional fees and services	2,150	250	3,900	750	250	400
19	Income tax	-	2,500	-	-	-	-
20	Miscellaneous other	200	350	180	300	200	200
21	Investments	-	-	-	-	-	-
22	Capital asset purchases	-	-	34,200	-	-	-
23	Loan Principal	-	-	-	-	-	126
24	Loan Interest	-	-	-	-	-	52
25	Dividends/withdrawals	-	-	-	-	-	2,000
26	Total cash payments	37,990	44,850	63,180	30,110	24,530	37,498
27							
28	Cash balance before financing	26,590	23,380	68,90	**(3,020)**	**6,380)**	**8,752**
29	Less: minimum cash reserve	15,000	15,000	15,000	15,000	15,000	15,000
30	Excess / (Deficiency)	$11,590	$8,380	($8,110)	**($18,020)**	**($8,620)**	**($6,248)**

SOLUTIONS Appendix 1, continued

b. The owners have a number of choices, such as: 1) Maintain expenditures but defer payments by $7,000 into later periods. 2) Reduce expenditures. 3) Obtain financing in the form of borrowing. 4) Obtain financing in the form of investment. 5) Sell assets.

Reinforcement Problems

A1-1.

a.

	Week 0	Week 1	Week 2	Week 3
Unit sales	15,000	14,100	16,800	15,500
Add: ending inventory	11,985	14,280	13,175	13,600
Total inventory needed	26,985	28,380	29,975	29,100
Less: beginning inventory	12,750	11,985	14,280	13,175
Unit purchases	14,235	16,395	15,695	15,925

b. Week 2: (14,280 × $1.60) + [(16,800 − 14,280) × $1.55] = $26,754 × .99 = $26,486
Week 3: (13,175 × $1.55) + [(15,500 − 13,175) × $1.70] = $24,373 × .99 = $24,130

c. Week 2: 16,395 × $1.60 × .99 = $25,970
Week 3: 15,695 × $1.55 × .99 = $24,084

A1-2.

	August	September
From June: On account:		
$28,000 ×.95 × .1	$2,660	—
From July: On account:		
18,700 × $1.80 = $33,660 total		
$33,660 × .95 × .2 × .98	6,267	
$33,660 × .95 × .1	3,198	3,198
From August:		
Cash sales:		
5,280 × $2.00	10,560	
On account:		
21,640 × $2.00 = $43,280 total		
$43,280 × .95 ×.6 × .98	24,176	
$43,280 × .95 × .2 × .98		8,059
$43,280 × .95 × .1		4,112
From September:		
Cash sales:		
4,500 × $1.90		8,550
On account:		
18,630 × $1.90 = $35,397 total		
$35,397 × .95 × .6 × .98		19,773
Total	$46,681	$43,692

SOLUTIONS

Appendix 1, continued

A1-3.

Cash Budget: Weeks Ending June 8–June 22

		6/8	6/15	6/22
Adjustment to actual		$1,350	$690	$(480)
1	Beginning cash balance	12,600	30,700	24,520
2	**Cash receipts**			
3	From sales to customers	82,920	78,650	85,800
4	From investments	2,500	-0-	-0-
5	From capital asset sales	-0-	-0-	-0-
6	Other	-0-	-0-	-0-
7	Total cash available	98,020	109,350	110,320
8				
9	**Cash payments**			
10	Merchandise purchases	55,600	56,850	57,100
11	Marketing – wage/commission	4,140	3,200	3,580
12	Marketing – other	5,000	2,500	2,000
13	Wages	7,400	7,400	7,400
14	Other operating expenditures	12,870	11,900	13,960
15	Income tax	-0-	5,000	-0-
16	Investments	-0-	-0-	-0-
17	Capital asset purchases	-0-	12,000	-0-
18	Other	-0-	-0-	-0-
19	Total cash payments	85,010	98,850	84,040
20				
21	Cash balance before financing	13,010	10,500	26,280
22	Less: minimum cash reserve	25,000	25,000	25,000
23	Excess / (Deficiency)	(11,990)	(14,500)	1,280
24				
25	Financing activities			
26	Borrowing	-0-	14,500	-0-
27	Stockholder/owner investment	17,000	-0-	-0-
28	Principal payments	-0-	-0-	-0-
29	Interest payments	-0-	-0-	-0-
30	Dividends/withdrawals	-0-	-0-	-0-
31	Net financing effect	17,000	14,500	-0-
32	Ending cash balance	$30,010	$25,000	26,280

Note that although it was necessary to borrow $14,500 during the week ending June 15, payments will not begin until July.