Required:

1. Prepare the company's direct materials budget and schedule of expected cash disbursements for purchases of materials for the upcoming fiscal year.
2. Prepare the company's direct labor budget for the upcoming fiscal year, assuming that the direct labor workforce is adjusted each quarter to match the number of hours required to produce the forecasted number of units produced.

EXERCISE 8–12 Direct Labor and Manufacturing Overhead Budgets [LO5, LO6]

The Production Department of Harveton Corporation has submitted the following forecast of units to be produced by quarter for the upcoming fiscal year.

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Units to be produced	16,000	15,000	14,000	15,000

Each unit requires 0.80 direct labor-hours and direct labor-hour workers are paid $11.50 per hour.

In addition, the variable manufacturing overhead rate is $2.50 per direct labor-hour. The fixed manufacturing overhead is $90,000 per quarter. The only noncash element of manufacturing overhead is depreciation, which is $34,000 per quarter.

Required:

1. Prepare the company's direct labor budget for the upcoming fiscal year, assuming that the direct labor workforce is adjusted each quarter to match the number of hours required to produce the forecasted number of units produced.
2. Prepare the company's manufacturing overhead budget.

EXERCISE 8–13 Production and Direct Materials Budgets [LO3, LO4]

Tonga Toys manufactures and distributes a number of products to retailers. One of these products, Playclay, requires three pounds of material A135 in the manufacture of each unit. The company is now planning raw materials needs for the third quarter—July, August, and September. Peak sales of Playclay occur in the third quarter of each year. To keep production and shipments moving smoothly, the company has the following inventory requirements:

a. The finished goods inventory on hand at the end of each month must be equal to 5,000 units plus 30% of the next month's sales. The finished goods inventory on June 30 is budgeted to be 17,000 units.
b. The raw materials inventory on hand at the end of each month must be equal to one-half of the following month's production needs for raw materials. The raw materials inventory on June 30 for material A135 is budgeted to be 64,500 pounds.
c. The company maintains no work in process inventories.

A sales budget for Playclay for the last six months of the year follows.

	Budgeted Sales in Units
July	40,000
August	50,000
September	70,000
October	35,000
November	20,000
December	10,000

Required:

1. Prepare a production budget for Playclay for the months July, August, September, and October.
2. Examine the production budget that you prepared. Why will the company produce more units than it sells in July and August and less units than it sells in September and October?
3. Prepare a direct materials budget showing the quantity of material A135 to be purchased for July, August, and September and for the quarter in total.

EXERCISE 8–14 Schedules of Expected Cash Collections and Disbursements; Income Statement; Balance Sheet [LO2, LO4, LO9, LO10]

Colerain Corporation is a merchandising company that is preparing a profit plan for the third quarter of the calendar year. The company's balance sheet as of June 30 is shown below:

Colerain Corporation Balance Sheet June 30	
Assets	
Cash	$ 80,000
Accounts receivable	126,000
Inventory	52,000
Plant and equipment, net of depreciation	200,000
Total assets	$458,000
Liabilities and Stockholders' Equity	
Accounts payable	$ 61,100
Common stock	300,000
Retained earnings	96,900
Total liabilities and stockholders' equity	$458,000

Colerain's managers have made the following additional assumptions and estimates:

1. Estimated sales for July, August, September, and October will be $200,000, $220,000, 210,000, and $230,000, respectively.
2. All sales are on credit and all credit sales are collected. Each month's credit sales are collected 30% in the month of sale and 70% in the month following the sale. All of the accounts receivable at June 30 will be collected in July.
3. Each month's ending inventory must equal 40% of the cost of next month's sales. The cost of goods sold is 65% of sales. The company pays for 50% of its merchandise purchases in the month of the purchase and the remaining 50% in the month following the purchase. All of the accounts payable at June 30 will be paid in July.
4. Monthly selling and administrative expenses are always $65,000. Each month $5,000 of this total amount is depreciation expense and the remaining $60,000 relates to expenses that are paid in the month they are incurred.
5. The company does not plan to borrow money or pay or declare dividends during the quarter ended September 30. The company does not plan to issue any common stock or repurchase its own stock during the quarter ended September 30.

Required:

1. Prepare a schedule of expected cash collections for July, August, and September. Also compute total cash collections for the quarter ended September 30th.
2. *a.* Prepare a merchandise purchases budget for July, August, and September. Also compute total merchandise purchases for the quarter ended September 30th.
   b. Prepare a schedule of expected cash disbursements for merchandise purchases for July, August, and September. Also compute total cash disbursements for merchandise purchases for the quarter ended September 30th.
3. Prepare an income statement for the quarter ended September 30th. Use the absorption format shown in Schedule 9.
4. Prepare a balance sheet as of September 30th.

EXERCISE 8–15 Cash Budget Analysis [LO8]

A cash budget, by quarters, is shown on the following page for a retail company (000 omitted). The company requires a minimum cash balance of $5,000 to start each quarter.

	Quarter				
	1	2	3	4	Year
Cash balance, beginning	$ 9	$?	$?	$?	$?
Add collections from customers	?	?	125	?	391
Total cash available	85	?	?	?	?
Less disbursements:					
Purchases of inventory	40	58	?	32	?
Operating expenses	?	42	54	?	180
Equipment purchases	10	8	8	?	36
Dividends	2	2	2	2	?
Total disbursements	?	110	?	?	?
Excess (deficiency) of cash available over disbursements	(3)	?	30	?	?
Financing:					
Borrowings	?	20	—	—	?
Repayments (including interest)*	—	—	(?)	(7)	(?)
Total financing	?	?	?	?	?
Cash balance, ending	$?	$?	$?	$?	$?

*Interest will total $4,000 for the year.

Required:
Fill in the missing amounts in the table above.

Problems

connect ACCOUNTING

All applicable problems are available with McGraw-Hill's *Connect™ Accounting.*

PROBLEM 8–16 Schedules of Expected Cash Collections and Disbursements [LO2, LO4, LO8]
Calgon Products, a distributor of organic beverages, needs a cash budget for September. The following information is available:

a. The cash balance at the beginning of September is $9,000.
b. Actual sales for July and August and expected sales for September are as follows:

	July	August	September
Cash sales	$ 6,500	$ 5,250	$ 7,400
Sales on account	20,000	30,000	40,000
Total sales	$26,500	$35,250	$47,400

Sales on account are collected over a three-month period as follows: 10% collected in the month of sale, 70% collected in the month following sale, and 18% collected in the second month following sale. The remaining 2% is uncollectible.

c. Purchases of inventory will total $25,000 for September. Twenty percent of a month's inventory purchases are paid for during the month of purchase. The accounts payable remaining from August's inventory purchases total $16,000, all of which will be paid in September.
d. Selling and administrative expenses are budgeted at $13,000 for September. Of this amount, $4,000 is for depreciation.