

BA

Examination: 5075 „Management Accounting ~~VI~~ VI
Examiner: Dr. Barbara Pirchegger

Spring Term 2004

The following aids can be used:

non-programmable calculators without communication- or text processing function, ruler

Hint: A maximum of 105 points can be reached from solving the 6 problem sets below. The numbers in brackets tell you how many points can be obtained from each problem.

Problem 1 (15):

Cowley County Hospital uses a job-costing system for all patients who have surgery. In March, the pre-operating room (PRE-OP) and operating room (OR) had budgeted allocation bases of 4,000 nursing hours and 2,000 nursing hours, respectively. The budgeted nursing overhead charges for each department for the month were \$168,000 and \$132,000, respectively. The hospital floor for surgery patients had budgeted overhead costs of \$1,200,000 and 15,000 nursing hours for the month. For patient Fred Adams, actual hours incurred were eight and four hours, respectively, in the PRE-OP and OR rooms. He was in the hospital for 4 days (96 hours). Other costs related to Adams were:

	<u>PRE-OP</u> <u>Costs</u>	<u>OR</u> <u>Costs</u>	<u>In-room</u> <u>Costs</u>
Patient medicine	\$ 200	\$ 500	\$2,400
Direct nursing time	\$1,000	\$2,000	\$3,000

The hospital uses a budgeted overhead rate for applying overhead to patient stays.

Required:

What is the total cost of the stay of patient Fred Adams?

Problem 2 (20):

Russell Company has the following projected account balances for June 30, 20x4:

Accounts payable	\$40,000	Sales	\$800,000
Accounts receivable	100,000	Capital stock	400,000
Depreciation, factory	24,000	Retained earnings	?
Inventories	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:

- a. Prepare a budgeted income statement for June 20x4.
- b. Prepare a budgeted balance sheet as of June 30, 20x4.

Problem 3 (25):

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% of the unit sales for the next month.

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

Required:

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

Problem 4 (20):

Megredy Company prepared the following absorption-costing income statement for the year ended May 31, 20x4.

Sales (16,000 units)	\$320,000
Cost of goods sold	<u>216,000</u>
Gross margin	\$104,000
Selling and administrative expenses	<u>46,000</u>
Operating income	<u>\$ 58,000</u>

Additional information follows:

Selling and administrative expenses include \$1.50 of variable cost per unit sold. There was no beginning inventory, and 17,500 units were produced. Variable manufacturing costs were \$11 per unit. Actual fixed costs were equal to budgeted fixed costs.

Required:

Prepare a variable-costing income statement for the same period.

Problem 5 (10):

Southwestern Company needs 1,000 motors in its manufacture of automobiles. It can buy the motors from Jinx Motors for \$1,250 each. Southwestern's plant can manufacture the motors for the following costs per unit:

Direct materials	\$ 500
Direct manufacturing labor	250
Variable manufacturing overhead	200
Fixed manufacturing overhead	<u>350</u>
Total	<u>\$1,300</u>

If Southwestern buys the motors from Jinx, 70% of the fixed manufacturing overhead applied will not be avoided.

Required:

- Should the company make or buy the motors?
- What additional factors should Southwestern consider in deciding whether or not to make or buy the motors?

Problem 6 (15):

Each time Mayberry Nursery hires a new employee, it must wait for some period of time before the employee can meet production standards. Management is unsure of the learning curve in its operations but it knows the first job by a new employee averages 30 hours and the second job averages 24 hours. Assume all jobs to be equal in size.

Required:

- What is the learning-curve percentage, assuming the cumulative average-time method?
- What is the time for a new employee to build 16 units with this learning curve using the cumulative average-time method? You may use an index of -0.1520.