

PROBLEMS: SET B

P2-1B Pedriani Company uses a job order cost system and applies overhead to production on the basis of direct labor hours. On January 1, 2017, Job No. 25 was the only job in process. The costs incurred prior to January 1 on this job were as follows: direct materials \$10,000; direct labor \$6,000; and manufacturing overhead \$9,000. Job No. 23 had been completed at a cost of \$42,000 and was part of finished goods inventory. There was a \$5,000 balance in the Raw Materials Inventory account.

During the month of January, the company began production on Jobs 26 and 27, and completed Jobs 25 and 26. Jobs 23 and 25 were sold on account during the month for \$63,000 and \$74,000, respectively. The following additional events occurred during the month.

1. Purchased additional raw materials of \$45,000 on account.
2. Incurred factory labor costs of \$33,500. Of this amount, \$7,500 related to employer payroll taxes.
3. Incurred manufacturing overhead costs as follows: indirect materials \$10,000; indirect labor \$9,500; depreciation expense on equipment \$12,000; and various other manufacturing overhead costs on account \$11,000.
4. Assigned direct materials and direct labor to jobs as follows.

Job No.	Direct Materials	Direct Labor
25	\$ 5,000	\$ 3,000
26	17,000	12,000
27	13,000	9,000

5. The company uses direct labor hours as the activity base to assign overhead. Direct labor hours incurred on each job were as follows: Job No. 25, 200; Job No. 26, 800; and Job No. 27, 600.

Instructions

- (a) Calculate the predetermined overhead rate for the year 2017, assuming Pedriani Company estimates total manufacturing overhead costs of \$440,000, direct labor costs of \$300,000, and direct labor hours of 20,000 for the year.
- (b) Open job cost sheets for Jobs 25, 26, and 27. Enter the January 1 balances on the job cost sheet for Job No. 25.
- (c) Prepare the journal entries to record the purchase of raw materials, the factory labor costs incurred, and the manufacturing overhead costs incurred during the month of January.
- (d) Prepare the journal entries to record the assignment of direct materials, direct labor, and manufacturing overhead costs to production. In assigning manufacturing overhead costs, use the overhead rate calculated in (a). Post all costs to the job cost sheets as necessary.
- (e) Total the job cost sheets for any job(s) completed during the month. Prepare the journal entry (or entries) to record the completion of any job(s) during the month.
- (f) Prepare the journal entry (or entries) to record the sale of any job(s) during the month.
- (g) What is the balance in the Work in Process Inventory account at the end of the month? What does this balance consist of?
- (h) What is the amount of over- or underapplied overhead?

Prepare entries in a job order cost system and job cost sheets.

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(e) Job 25, \$37,500
Job 26, \$46,600

P2-2B For the year ended December 31, 2017, the job cost sheets of Dosey Company contained the following data.

Job Number	Explanation	Direct Materials	Direct Labor	Manufacturing Overhead	Total Costs
7650	Balance 1/1	\$18,000	\$20,000	\$25,000	\$ 63,000
	Current year's costs	32,000	36,000	45,000	113,000
7651	Balance 1/1	12,000	16,000	20,000	48,000
	Current year's costs	30,000	40,000	50,000	120,000
7652	Current year's costs	35,000	68,000	85,000	188,000

Other data:

1. Raw materials inventory totaled \$20,000 on January 1. During the year, \$100,000 of raw materials were purchased on account.
2. Finished goods on January 1 consisted of Job No. 7648 for \$93,000 and Job No. 7649 for \$62,000.

Prepare entries in a job order cost system and partial income statement.

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3. Job No. 7650 and Job No. 7651 were completed during the year.
4. Job Nos. 7648, 7649, and 7650 were sold on account for \$490,000.
5. Manufacturing overhead incurred on account totaled \$135,000.
6. Other manufacturing overhead consisted of indirect materials \$12,000, indirect labor \$16,000, and depreciation on factory machinery \$19,500.

Instructions

- (a) Prove the agreement of Work in Process Inventory with job cost sheets pertaining to unfinished work. (*Hint: Use a single T-account for Work in Process Inventory.*) Calculate each of the following, then post each to the T-account: (1) beginning balance, (2) direct materials, (3) direct labor, (4) manufacturing overhead, and (5) completed jobs.
- (b) Prepare the adjusting entry for manufacturing overhead, assuming the balance is allocated entirely to cost of goods sold.
- (c) Determine the gross profit to be reported for 2017.

Prepare entries in a job order cost system and cost of goods manufactured schedule.

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P2-3B Robert Perez is a contractor specializing in custom-built jacuzzis. On May 1, 2017, his ledger contains the following data.

Raw Materials Inventory	\$30,000
Work in Process Inventory	12,200
Manufacturing Overhead	2,500 (dr.)

The Manufacturing Overhead account has debit totals of \$12,500 and credit totals of \$10,000. Subsidiary data for Work in Process Inventory on May 1 include:

Job Cost Sheets

<u>Job by Customer</u>	<u>Direct Materials</u>	<u>Direct Labor</u>	<u>Manufacturing Overhead</u>
Stiner	\$2,500	\$2,000	\$1,400
Alton	2,000	1,200	840
Herman	900	800	560
	<u>\$5,400</u>	<u>\$4,000</u>	<u>\$2,800</u>

During May, the following costs were incurred: raw materials purchased on account \$4,000, labor paid \$7,000, and manufacturing overhead paid \$1,400.

A summary of materials requisition slips and time tickets for the month of May reveals the following.

<u>Job by Customer</u>	<u>Materials Requisition Slips</u>	<u>Time Tickets</u>
Stiner	\$ 500	\$ 400
Alton	600	1,000
Herman	2,300	1,300
Smith	1,900	2,300
	<u>5,300</u>	<u>5,000</u>
General use	1,500	2,000
	<u>\$6,800</u>	<u>\$7,000</u>

Overhead was charged to jobs on the basis of \$0.70 per dollar of direct labor cost. The jacuzzis for customers Stiner, Alton, and Herman were completed during May. The three jacuzzis were sold for a total of \$36,000.

Instructions

- (a) Prepare journal entries for the May transactions: (i) for purchase of raw materials, factory labor costs incurred, and manufacturing overhead costs incurred; (ii) assignment of raw materials, labor, and overhead to production; and (iii) completion of jobs and sale of goods.
- (b) Post the entries to Work in Process Inventory.
- (c) Reconcile the balance in Work in Process Inventory with the costs of unfinished jobs.
- (d) Prepare a cost of goods manufactured schedule for May.

(d) Cost of goods manufactured \$20,190

Compute predetermined overhead rates, apply overhead, and calculate under- or overapplied overhead.

(LO 3, 5), AP

P2-4B Net Play Company uses a job order cost system in each of its three manufacturing departments. Manufacturing overhead is applied to jobs on the basis of direct labor cost in Department A, direct labor hours in Department B, and machine hours in Department C.

In establishing the predetermined overhead rates for 2017, the following estimates were made for the year.

	Department		
	A	B	C
Manufacturing overhead	\$720,000	\$640,000	\$900,000
Direct labor cost	\$600,000	\$100,000	\$600,000
Direct labor hours	50,000	40,000	40,000
Machine hours	100,000	120,000	150,000

During January, the job cost sheets showed the following costs and production data.

	Department		
	A	B	C
Direct materials used	\$92,000	\$86,000	\$64,000
Direct labor cost	\$48,000	\$35,000	\$50,400
Manufacturing overhead incurred	\$60,000	\$60,000	\$72,100
Direct labor hours	4,000	3,500	4,200
Machine hours	8,000	10,500	12,600

Instructions

- Compute the predetermined overhead rate for each department.
- Compute the total manufacturing costs assigned to jobs in January in each department.
- Compute the under- or overapplied overhead for each department at January 31.

P2-5B Bell Company's fiscal year ends on June 30. The following accounts are found in its job order cost accounting system for the first month of the new fiscal year.

Raw Materials Inventory					
July 1	Beginning balance	19,000	July 31	Requisitions	(a)
31	Purchases	90,400			
July 31	Ending balance	(b)			
Work in Process Inventory					
July 1	Beginning balance	(c)	July 31	Jobs completed	(f)
31	Direct materials	80,000			
31	Direct labor	(d)			
31	Overhead	(e)			
July 31	Ending balance	(g)			
Finished Goods Inventory					
July 1	Beginning balance	(h)	July 31	Cost of goods sold	(j)
31	Completed jobs	(i)			
July 31	Ending balance	(k)			
Factory Labor					
July 31	Factory wages	(l)	July 31	Wages assigned	(m)
Manufacturing Overhead					
July 31	Indirect materials	8,900	July 31	Overhead applied	117,000
31	Indirect labor	16,000			
31	Other overhead	(n)			

Other data:

- On July 1, two jobs were in process: Job No. 4085 and Job No. 4086, with costs of \$19,000 and \$8,200, respectively.
- During July, Job Nos. 4087, 4088, and 4089 were started. On July 31, only Job No. 4089 was unfinished. This job had charges for direct materials \$2,000 and direct labor \$1,500, plus manufacturing overhead. Manufacturing overhead was applied at the rate of 130% of direct labor cost.
- On July 1, Job No. 4084, costing \$145,000, was in the finished goods warehouse. On July 31, Job No. 4088, costing \$138,000, was in finished goods.
- Overhead was \$3,000 underapplied in July.

Instructions

List the letters (a) through (n) and indicate the amount pertaining to each letter. Show computations.

- (a) 120%, \$16, \$6
 (b) \$197,600, \$177,000, \$190,000
 (c) \$2,400 \$4,000, \$(3,500)

Analyze manufacturing accounts and determine missing amounts.

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- (d) \$ 90,000
 (f) \$308,750
 (l) \$106,000