ADVANCED FINANCIAL ACCOUNTING AND REPORTING

AFAR20

JOB ORDER COSTING

HANDOUT
I. SUMMARY NOTES

Cost Concepts, Classifications and Terminologies

**Financial accounting** is concerned principally with reporting to external users, usually through a set of financial statements produced in accordance with GAAP. Financial accounting thus has a historical focus.

**Management accounting** is concerned principally with reporting to internal users. The management accountant's goal is to produce reports that improve organizational decision making. Management accounting is thus future-oriented.

**Cost accounting** supports both financial and management accounting. Information about the cost of resources acquired and consumed by an organization underlies effective reporting for both internal and external users.

**Manufacturing Cost.** The costs of manufacturing a product can be classified as one of three types:

1. **Direct materials** are those tangible inputs to the manufacturing process that can practically be traced to the product, e.g., sheet metal welded together for an assembled jeepney.
   a. In addition to the purchase price, all costs of bringing raw materials to the production line, e.g., transportation-in, are included in the cost of direct materials.
2. **Direct labor** is the cost of human labor that can practically be traced to the product, e.g., the wages of the welder.
3. **Manufacturing overhead** consists of all costs of manufacturing that are not direct materials or direct labor.
   a. **Indirect materials** are tangible inputs to the manufacturing process that cannot practically be traced to the product, e.g., the welding compound used to put together a piece of heavy equipment, or staples used in a stapling machine
   b. **Indirect labor** is the cost of human labor connected with the manufacturing process that cannot practically be traced to the product, e.g., the wages of assembly line supervisors and janitorial staff.
   c. **Factory operating costs**, such as utilities, real estate taxes, insurance, depreciation on factory equipment, etc.

Manufacturing costs are often grouped into the following classifications:

1. **Prime cost** equals direct materials plus direct labor, i.e., those costs directly attributable to a product.
2. **Conversion cost** equals direct labor plus manufacturing overhead, i.e., the costs of converting raw materials into the finished product.
Non-manufacturing cost. Operating a manufacturing concern requires the incurrence of nonmanufacturing costs:

1. **Selling (marketing) expenses** are those costs incurred in getting the product from the factory to the consumer, e.g., sales personnel salaries, advertising, and product transportation.
2. **Administrative expenses** are those costs incurred by a company not directly related to producing or marketing the product, e.g., executive salaries and depreciation on the headquarters building.

Product and Period Cost. One of the most important classifications a cost accountant can make is whether to capitalize a cost as part of finished goods inventory or to expense it as incurred.

1. **Product costs** (also called inventoriable costs) are capitalized as part of finished goods inventory. They eventually become a component of cost of goods sold.
2. **Period costs** are expensed as incurred, i.e., they are not capitalized in finished goods inventory and are thus excluded from cost of goods sold.

**Cost of Goods Manufactured and Sold**

Cost of goods sold is a straightforward computation for a retailer because retailers have only a single class of inventory.

The calculation is more complex for a manufacturer because manufacturers have three distinct classes of inventory.

Total manufacturing costs are calculated on a separate statement called a Cost of Goods Manufactured Statement (or sometimes simply the Manufacturing Statement). The statement compiles the three major elements of manufacturing cost: new materials, direct labor, and factory overhead.

**Costing Systems**

- **Actual costing:** DM = Actual cost, DL = Actual cost, MOH = Actual cost
- **Normal Costing:** DM Actual cost, DL = Actual costs, MOH = Estimated using pre-determined OH rate
- **Standard Costing:** DM = Standard cost, DL = Standard cost, MOH = Standard cost (later compared to actual cost for variance analysis)

**Use of Job Order Costing**

Job-order costing is concerned with accumulating costs by specific job.

This method is appropriate when producing products with individual characteristics (e.g., yachts), or when identifiable groupings are possible (e.g., jewelry). Units (jobs) should be dissimilar enough to warrant the special record keeping required by job-order costing. Products are usually custom made for a specific customer.

**Entries in Job Order Costing**

- Purchase of raw materials
Raw materials inventory xx
  Accounts payable xx
Issuance of materials (via materials requisition form)
  Work in process – Job 123 xx
  Raw materials xx
Incurrence of direct labor (via time cards or tickets)
  Work in process – Job 123 xx
  Wages payable xx
Manufacturing overhead, is charged to job cost tickets using an estimated rate (applied OH).
  Work in process – Job 123 xx
  Factory overhead control xx
Actual factory costs are incurred later in the production
  Factory overhead control xx
  Property taxes payable xx
  Prepaid insurance xx
  Accumulated dep’n – equip xx
Note: At the end of the period, the overhead control and applied accounts are netted. If the result is a credit, overhead was overapplied for the period. If the result is a debit, overhead was underapplied. If the variance is immaterial, it can be closed directly to cost of goods sold. If the variance is material, it should be allocated based on the relative values of work-in-process, finished goods, and cost of goods sold.
Completion of job order
  Finished goods xx
  Work in process – Job 123 xx
Completed job is delivered to the customer
  Cost of good sold xx
  Finished goods xx
Spoilage
Output that does not meet the quality standards for salability is considered spoilage. If the spoilage is the amount expected in the ordinary course of production, it is considered normal spoilage. The accounting treatment is to include normal spoilage as a product cost. This is accomplished by allowing the net cost of the spoilage to remain in the work-in-process account of the job that generated it. If the normal spoilage is worthless and must be discarded, no entry is made. If the normal spoilage can be sold, the entry is

Spoiled inventory (at FMV) xx
   Work in process – Job 123 xx

If the spoilage is over and above the amount expected in the ordinary course of production, it is considered abnormal spoilage. The accounting treatment is to highlight abnormal spoilage as a period cost so that management can address the deficiency that caused it. This is accomplished by charging a loss account for the net cost of the spoilage. If the abnormal spoilage is worthless and must be discarded, the entry is

Loss from abnormal spoilage xx (costs up to the point of inspection)
   Work in process – Job 123 xx

If the abnormal spoilage can be sold, the entry is

Spoiled inventory xx
Loss from abnormal spoilage xx (difference)
   Work in process – Job 123 xx (costs up to the point of inspection)

MULTIPLE CHOICE QUESTIONS

Problem 1 (Actual and Normal Costing): For the fiscal year 2017, Matz Solution would incur total overhead costs of P1,200,000 and work 40,000 machine hours. During January 2017, the company works exclusively on one job, Job# 458. It incurred January costs as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct materials</td>
<td>P121,000</td>
</tr>
<tr>
<td>Direct labor (1,400 hours)</td>
<td>30,800</td>
</tr>
<tr>
<td>Manufacturing overhead:</td>
<td></td>
</tr>
<tr>
<td>Rent</td>
<td>P11,200</td>
</tr>
<tr>
<td>Utilities</td>
<td>15,200</td>
</tr>
<tr>
<td>Insurance</td>
<td>32,100</td>
</tr>
<tr>
<td>Labor</td>
<td>15,500</td>
</tr>
<tr>
<td>Depreciation</td>
<td>23,700</td>
</tr>
<tr>
<td>Maintenance</td>
<td>10,800</td>
</tr>
<tr>
<td>Total overhead</td>
<td>108,500</td>
</tr>
<tr>
<td>Total manufacturing costs</td>
<td>P260,300</td>
</tr>
</tbody>
</table>
Machine hours worked in January: 3,400

1. Assuming the company uses an actual cost system, compute the January costs assigned to Job#458.
   a. P253,800  
   b. P251,800  
   c. **P260,300**  
   d. P265,000

2. Assuming the company uses an normal cost system, compute the January costs assigned to Job#458.
   a. **P253,800**  
   b. P251,800  
   c. P260,300  
   d. P265,000

Problem 2 (Disposition of Over-Under Applied Overhead): The records of Hammer Company revealed the following data for 20X7:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work in process</td>
<td>P73,150</td>
</tr>
<tr>
<td>Finished goods</td>
<td>115,000</td>
</tr>
<tr>
<td>Cost of goods sold</td>
<td>133,650</td>
</tr>
<tr>
<td>Direct labor</td>
<td>111,600</td>
</tr>
<tr>
<td>Direct material</td>
<td>84,200</td>
</tr>
</tbody>
</table>

3. (Refer to Hammer Co.) Assume, for this question only, actual overhead is P98,700 and applied overhead is P93,250. Manufacturing overhead is
   a. Overapplied by P12,900  
   b. Underapplied by P18,350  
   c. Overapplied by P5,450  
   d. **Underapplied by P5,450**

4. (Refer to Hammer Co.) Assume that Hammer has underapplied overhead of P37,200 for 20X7 and that this amount is material. What journal entry is needed to close the Overhead account? (Round decimals to nearest whole percent)
   a. Debit Work in Process P8,456; Finished Goods P13,294; Cost of Goods Sold P15,450 and credit Overhead P37,200
   b. Debit Overhead P37,200 and credit Work in Process P8,456; Finished Goods P13,294; Cost of Goods Sold P15,450
   c. Debit Work in Process P37,200 and credit Overhead P37,200
   d. Debit Cost of Goods Sold P37,200 and credit Overhead P37,200

5. (Refer to Hammer Co.) Assume that Hammer has underapplied overhead of P10,000 for 20X7 and this amount is immaterial. What is the balance in Cost of Goods Sold after the underapplied overhead is closed?
   a. P133,650  
   b. P123,650  
   c. **P143,650**  
   d. P137,803

6. (Refer to Hammer Co.) Assume that Hammer has overapplied overhead of P25,000 for 20X7 and that this amount is material. What is the balance in Cost of Goods Sold after the underapplied overhead is closed?
   a. **P123,267**  
   b. P144,033  
   c. P158,650  
   d. P108,650
Problem 3 (Job Order Costs Sheets): The Usry Company uses a job order cost system. The inventories on October 1: Finished goods, P5,000 (Job No. 1000), Work in process, P445 (Job No. 1001) and direct materials of P2,000. Purchases of direct materials, 30,000 pieces @ P1.40 per piece. Following are additional costs incurred during the month:

<table>
<thead>
<tr>
<th>Job No.</th>
<th>Direct Materials</th>
<th>Direct Labor Cost</th>
<th>Direct Labor Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1001</td>
<td>P4,100</td>
<td>P1,375</td>
<td>1,300</td>
</tr>
<tr>
<td>1002</td>
<td>9,150</td>
<td>7,250</td>
<td>3,700</td>
</tr>
<tr>
<td>1003</td>
<td>11,275</td>
<td>14,325</td>
<td>8,200</td>
</tr>
<tr>
<td>1004</td>
<td>3,225</td>
<td>2,800</td>
<td>1,500</td>
</tr>
<tr>
<td>1005</td>
<td>6,500</td>
<td>6,100</td>
<td>3,200</td>
</tr>
<tr>
<td>1006</td>
<td>2,750</td>
<td>1,650</td>
<td>980</td>
</tr>
</tbody>
</table>

Manufacturing overhead costs are charged to jobs on the basis of P1.50 per direct labor hour used. The actual manufacturing cost for the month totalled P30,350. During October, Job Nos. 1001, 1002, 1004, and 1005 were completed. Jobs 1001 and 1002 were shipped out and the customers were billed for P9,000 for Job No. 1001 and P20,000 for 1002.

7. The cost of goods manufactured amounted to:
   a. P55,495
   b. P55,500
   c. P56,495
   d. P57,500

8. The work in process on October 31 amounted to:
   a. P25,675
   b. P29,820
   c. P43,770
   d. P69,445

9. The cost of goods available for sale amounted to:
   a. P55,495
   b. P60,495
   c. P60,500
   d. P61,495

10. The finished goods on October 31 amounted to:
    a. P8,275
    b. P17,400
    c. P30,675
    d. P43,770

11. The cost of goods sold amounted to:
    a. P29,820
    b. P29,375
    c. P21,950
    d. P7,870

12. The gross margins on Jobs 1001 and 1002 amounted to:
    a. P1,200  P1,850
    b. P1,130  (1,950)
    c. P1,150  P1,850
    d. 1,130(1,850)

13. The direct materials on October 31 amounted to:
    a. P5,000
    b. P7,000
    c. P30,675
    d. P43,770
Problem 4 (Department Rates): Carter Marketing Corporation uses a job order costing. It has three departments, X, Y, and Z. The manufacturing budget cost for 2008 is as follows:

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Dept X</th>
<th>Dept Y</th>
<th>Dept Z</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct materials</td>
<td>P600,000</td>
<td>P400,000</td>
<td>P200,000</td>
</tr>
<tr>
<td>Direct labor</td>
<td>200,000</td>
<td>500,000</td>
<td>400,000</td>
</tr>
<tr>
<td>Manufacturing overhead</td>
<td>600,000</td>
<td>100,000</td>
<td>200,000</td>
</tr>
</tbody>
</table>

For Job 01 completed in 2010, direct materials cost was P75,000; direct labor, Department X, P40,000, Department Y, P100,000 and Department Z, P20,000. The corporation applies manufacturing overhead to each job on the basis of direct labor cost using departmental rates predetermined at the beginning of the year based on the manufacturing overhead budget cost.

14. The total manufacturing costs of Job 01 is:
   a. P385,000   b. P310,000   c. P235,000   d. P150,000

Problem 5 (Overtime Premium and Shift Differentials): Reagan Company operates its factory on a two-shift basis and pays a late-shift differential of 15%. Reagan also pays a premium of 50% for overtime work. Since Reagan manufactures only for stock, the cost system provides for uniform direct-labor hourly charges for production done without regard to shift worked or work done on an overtime basis. Overtime and late-shift differentials are included in Reagan’s factory overhead application rate. The May payroll for production workers is as follows:

   | Wages at basis direct labor rates | P325,000 |
   | Shift differentials               | P25,000  |
   | Overtime premium                  | P10,000  |

15. For the month of May, what amount of direct labor should Reagan charge to work in process?
   a. P325,000   b. P335,000   c. P350,000   d. P360,000

Problem 6 (Spoilage of Spoiled Goods): Harper Company’s Job 501 for the manufacture of 2,200 units, which was completed during August at the unit costs presented below:

| Direct materials | P20 |
| Direct labor    | P18 |
| Factory overhead (includes an allowance of P1 for spoiled work) | P18 |
| Total           | P56 |

Final inspection of Job 501 disclosed 200 spoiled units which were sold to a local jobber for P6,000.

16. Assume that spoilage loss is charged to all production or due to internal failure during August. What would be the unit cost of the product produced on Job 501?
   a. P53.00   b. P55.00   c. P56.00   d. P58.60
17. Assume that the spoilage loss is attributable to the exacting specifications of Job 501 (or production run) and is charged to specific job. What would be the unit cost of the product produced on Job 501?

a. P53.00  

b. P55.00  

c. **P57.50**  

d. P58.60

Problem 7 (Rework on Defective Goods): During March, Noelle Company incurred the following costs on Job 109 for the manufacture of 200 motors:

Original cost accumulation:

- Direct materials: P660
- Direct labor: 800
- Factory overhead (150% of direct labor): 1,200
- Total costs: P2,660

Direct costs of reworking 10 motors:

- Direct materials: P100
- Direct labor: 160
- Total costs: P260

18. The rework costs were attributable to internal failure (to all production) or charged to factory overhead, what is the cost per finished unit of Job 109?

a. P15.80  

b. P14.60  

c. P14.00  

d. **P13.30**

19. The rework costs were attributable to the exacting specifications of Job 109 (or production run) and the full rework costs were charged to this specific job. What is the cost per finished unit of Job 109?

a. **P15.80**  

b. P14.60  

c. P14.00  

d. P13.30

END