CHAPTER 2

JOB-ORDER COSTING FOR MANUFACTURING AND SERVICE COMPANIES

**LEARNING OBJECTIVES**

1. Distinguish between manufacturing and nonmanufacturing costs and between product and period costs.
2. Discuss the three inventory accounts of a manufacturing firm and describe the flow of product costs in a manufacturing firm’s accounts.
3. Discuss the types of product costing systems and explain the relation between the cost of jobs and the Work in Process Inventory, Finished Goods Inventory, and Cost of Goods Sold accounts.
4. Describe how direct material, direct labor, and manufacturing overhead are assigned to jobs.
5. Explain the role of a predetermined overhead rate in applying overhead to jobs and explain the treatment of the difference between actual overhead and overhead allocated to jobs using a predetermined rate.
6. Explain how service companies can use job-order costing to calculate the cost of services provided to customers.
7. Discuss modern manufacturing practices and how they affect product costing.

**CHAPTER REVIEW**

1. This chapter introduces the manufacturing costs: direct material, direct labor, and manufacturing overhead. The job-order costing system is discussed in detail, including source documents, cost flows, journal entries, applied overhead, and under- or overapplied overhead. Also discussed is how service companies can use job-order costing. Also presented is how modern manufacturing practices, i.e., JIT, CAM, and TQM systems, can affect product costing.

**Cost Classifications for Manufacturing Firms**

2. (L.O.1) Manufacturing costs (also known as product costs) are the costs associated with producing the final product. They consist of:

**a. Direct Materials:** These are the primary materials that are directly and easily traceable to the final product. For example: the wood in a table.

1. **Direct Labor:** These are the labor costs that are directly and easily traceable to the end product. For example: the production line workers labor.
2. **Manufacturing Overhead:** These are all of the other production costs other than direct materials and direct labor. They are also referred to as the indirect production costs. Examples include:
3. Indirect materials or supplies.
4. Indirect labor.

(3) Depreciation on plant and factory equipment.

(4) Factory utilities.

3. **Nonmanufacturing costs (also known as period costs)** consist of the selling, and general and administrative costs. Examples include:

1. Sales commissions.
2. Depreciation on automobiles and office equipment.
3. Office salaries.
4. Warehousing costs of finished products.

4. **Product costs** are the manufacturing costs, i.e., direct materials, direct labor, and manufacturing overhead. They are carried as assets until sold and then are expensed through the Cost of Goods Sold account.

5. **Period costs** are the nonmanufacturing costs, i.e., selling and general and administrative costs. They are expensed as incurred.

6. For financial reporting purposes GAAP requires that work in process, finished goods, and cost of goods sold be reflected at **full cost**, i.e., direct materials, direct labor, variable overhead, and fixed overhead.

For internal decision-making purposes, however, incremental analysis is appropriate. When choosing between decision alternatives, the analysis should concentrate only on those costs that will differ between the alternatives. In many instances, the fixed costs will not change, and can therefore be ignored.

**Balance Sheet Presentation of Product Costs**

7. (L.O.2) A manufacturing company has three inventory accounts reflected in the current assets section of the balance sheet.

a. **Raw Materials Inventory**: This account includes both direct and indirect materials.

b. **Work in Process Inventory:** This account contains the direct material, direct labor, and manufacturing overhead costs incurred on those jobs that are not finished at the end of the reporting period.

c. **Finished Goods Inventory:** This account includes the direct material, direct labor, and manufacturing overhead costs incurred on those jobs completed, but not sold, during the period.

**Flow of Product Costs in Accounts**

8. (L.O.2) In a manufacturing firms product costs flow from the product cost accounts to work in process, then finished goods, and finally into cost of goods sold.

9. The cost flows are as follows:

Raw Materials Work in Process Finished Goods Cost of

Inventory Inventory Inventory Goods Sold

D.M. Cost of

D.L. Goods Cost of

Applied Manufactured Goods Sold

O.H.

Wages Payable

Manufacturing

Overhead

Indirect

Materials

Indirect

Labor

**Income Statement Presentation of Product Costs**

1. The **cost of goods manufactured** represents the costs attached to those units completed during the current period. It is the cost transferred out of work in process into finished goods. These costs are summarized on the Schedule of Cost of Goods Manufactured.

Schedule of Cost of Goods Manufactured

|  |  |  |
| --- | --- | --- |
| Beginning work in process |  | $20,000 |
| Add: Current manufacturing costs |  |  |
| Direct material used | $700,000 |  |
| Direct labor | 300,000 |  |
| Manufacturing overhead | 100,000 | 1,100,000 |
| Total |  | 1,120,000 |
| Less: Ending work in process |  | 50,000 |
| Cost of Goods Manufactured |  | $1,070,000 |

1. The cost of goods manufactured is combined with the change in finished goods inventory to compute the cost of goods sold section of the income statement.

Partial Income Statement

|  |  |  |
| --- | --- | --- |
| Sales |  | $1,300,000 |
| Less: Cost of goods sold | $40,000 |  |
| Beginning finished goods | 1,070,000 |  |
| Add: Cost of goods manufactured | 1,110,000 |  |
| Cost of goods available for sale | 30,000 |  |
| Less: Ending finished goods |  | 1,080,000 |
| Gross profit |  | $220,000 |

**Types of Costing Systems**

12. (L.O.3) There are two major types of product costing systems. The system used depends on the type of manufacturing done.

a. **Job-order costing systems** are used when a firm manufactures goods to a customer’s unique requirements. In this type of system costs are accumulated by job, i.e., by individual product or batch, so the costs can be matched against the revenues generated. Examples include:

(1) Construction companies

(2) Printing companies

b. **Process costing systems** are used when a firm manufactures large quantities of a homogeneous product. Costs are accumulated by process (department), and unit costs are derived by dividing total costs by the total units produced. Chapter 3 will expand on process costing systems. Examples include:

(1) Chemical producing companies

(2) Paint producing companies

(3) Cement producing companies

**Overview of Job Costs and Financial Statement Accounts**

1. (L.O.3) In a job-order costing systems, product costs (direct materials, direct labor, and overhead) flow into work in process while a job is being worked on. When the job is completed, the costs flow out of work in process, into finished goods. And, when the job is sold, the costs flow out of finished goods into cost of goods sold.

Work in Process Finished Goods Cost of

Inventory Inventory Goods Sold

DM

DL Cost of Goods Cost of

OH Manufactured Goods Sold

**Job-Order Costing System**

14. (L.O.4) Various source documents are prepared to reflect the materials, labor, and overhead costs incurred on each job.

a. A **material requisition** form is used to withdraw materials, direct and indirect, from the raw materials inventory.

b. A **time ticket** is prepared by each employee to account for the labor expended on each job or for indirect activities.

c. A **job-cost sheet** is used to summarize all product costs on each job. The file of job cost sheets on incomplete jobs serves as a subsidiary ledger to the work-in-process inventory account.

15. Manufacturing overhead is assigned (applied) to each job using a predetermined overhead rate.

a. Overhead allocation rate =

b. Applied overhead = Overhead allocation rate × actual quantity of allocation base

16. The journal entries used to record the product cost flows in a job-order costing system are as follows:

a. To purchase raw materials

Raw Materials Inventory X X

Cash or Accounts Payable X X

b. To release materials to production

Work in Process Inventory (for direct materials) X X

Manufacturing Overhead (for indirect materials) X X

Raw Materials Inventory X X

c. To record labor costs

Work in Process Inventory (for direct labor) X X

Manufacturing Overhead (for indirect labor) X X

Wages Payable X X

d. To record any actual overhead costs

Manufacturing Overhead X X

Various Accounts X X

e. To record applied overhead

Work in Process Inventory X X

Manufacturing Overhead X X

f. To record completed jobs

Finished Goods Inventory X X

Work in Process Inventory X X

g. To record the Cost of Goods Sold

Cost of Goods Sold X X

Finished Goods Inventory X X

h. To record a credit sale

Accounts Receivable XX

Sales XX

17. The overhead allocation base chosen should be strongly correlated with overhead costs.

a. “You get what you measure.” Manufacturing managers will try to reduce costs because it reflects well on their managerial skills.

b. If the allocation base is reduced, applied overhead will be reduced. But, will actual overhead costs be reduced?

- If overhead is primarily fixed, a reduction in the allocation base will not result in reduced overhead.

18. **Activity-based costing (ABC)** is a method of applying overhead costs to products using a number of different allocation bases.

a. Costs are grouped into cost pools by activity.

b. Each pool has its own overhead rate, calculated by dividing the amount of the cost pool by the corresponding cost driver.

**Predetermined Overhead Rates**

19. (L.O.5) Overhead rates are based on annual estimates of overhead costs and estimates of the level of the allocation base.

a. Actual overhead costs are not used to develop overhead rates because they would not be known until the end of the year. This would make it impossible to cost the jobs being worked on during the year.

b. Annual overhead rates are used to smooth out the fluctuations that occur from month to month. Also, to smooth out the amount of fixed overhead applied each month.

**Eliminating Overapplied or Underapplied Overhead**

20. (L.O.5) At the end of each year the Manufacturing Overhead account is closed in order to adjust the inventory accounts and the Cost of Goods Sold account to reflect actual costs.

a. If the Manufacturing Overhead account has a debit balance, it is referred to as underapplied overhead.

b. If the Manufacturing Overhead account has a credit balance, it is referred to as overapplied overhead.

c. If the under- or overapplied overhead amount is considered immaterial, it is closed to the Cost of Goods Sold. For underapplied overhead the entry would be:

Cost of Goods Sold X X

Manufacturing Overhead X X

d. If the under-or overapplied overhead amount is considered significant, it is allocated to Work in Process Inventory, Finished Goods Inventory, and Cost of Goods Sold based on their respective balances. For underapplied overhead the entry would be:

Work in Process Inventory X X

Finished Goods Inventory X X

Cost of Goods Sold X X

Manufactured Overhead X X

**Job-Order Costing for Service Companies**

21. (L.O.6) Service companies may use job-order costing to keep track of the costs incurred for each patient, client, or vehicle. Examples include:

- Hospitals, law firms, consulting companies, and repair shops.

22. Each patient, client, or vehicle is treated as a job.

a. A document similar to a job cost sheet is used to accumulate the costs incurred.

b. Overhead may be applied using a predetermined overhead rate, similar to that used in a manufacturing company, or

c. In the case of repair shops, the cost of labor and materials is marked up to cover overhead and generate a profit.

**Modern Manufacturing Practices and Product Costing Systems**

23. (L.O.7) Changes in the manufacturing environment have affected the types of costs incurred and the way costs are recorded in a product costing system.

a. **Just-in-Time (JIT)** systems are used to reduced inventory levels. Raw materials are delivered from suppliers only when they are needed. And, production is only scheduled when a customer order has been received.

1. JIT systems also are used to improve quality, eliminate production breakdowns, and prevent missed delivery deadlines.

(2) Job-Order costing systems can be adapted for JIT by combining the Raw Materials and Work in Process accounts into a new account called Raw-and-in-Process Inventory (RIP).

b. **Lean manufacturing** is closely related to JIT. However, lean manufacturing focuses on eliminating waste across the value chain, while JIT focuses on inventory management.

c. **Computer-controlled manufacturing systems** are used to control equipment and increase the flexibility and accuracy of the production process.

Highly mechanized companies have traded equipment for direct labor, resulting in a reduction of variable costs and an increase in fixed costs.

d. **Total quality management (TQM)** programs are used by companies to ensure that their products are of the highest quality and their production processes are efficient.

1. There is no agreement on the “right” way to implement a TQM program. However, most companies stress listening to customers, making products right the first time, and encouraging workers to continuously improve their production processes.
2. TQM affects product costs by reducing the need to track scrap and rework costs.

**Lecture Outline**

The material in this chapter can be covered in three class periods. Students will have the most difficulty with overhead. When discussing this topic make sure they understand why overhead

must be applied, how to calculate applied overhead, and how to differentiate between actual and applied overhead.

1. (L.O. 1) Cost classifications for manufacturing firms.
2. Manufacturing or Product costs.
3. **Direct materials**: Materials directly and easily traceable to the end product.
4. **Direct labor**: The hands-on labor in the production process.
5. **Manufacturing overhead**: All other manufacturing costs other than direct materials and direct labor.
6. Inventoried until sold and then expensed through cost of goods sold.
7. Nonmanufacturing or period costs
8. Selling, general, and administrative costs.
9. Expensed as incurred.
10. GAAP requires inventories be carried at **full cost**.
11. Direct materials, direct labor, variable overhead, and fixed overhead.
12. Decision making relies on incremental analysis.

- If fixed costs don’t change between alternatives, they are not incremental or relevant.

1. (L.O. 2) Balance sheet presentation of product cost
2. Direct materials inventory
3. Work in process inventory
4. Finished goods inventory
5. (L.O. 2) Flow of product costs
6. Product costs flow into work in process inventory until the job is completed.
7. Product costs flow out of work in process inventory into finished goods inventory when the job is completed.

- Cost of goods manufactured

1. Product costs flow out of finished goods inventory into cost of goods sold when the job is sold.
2. Income statement presentation of product costs.

1. Cost of goods manufactured = Beginning work in process + current manufactured costs – ending work in process.

2. Cost of goods sold = Beginning finished goods + cost of goods manufactured - ending

finished goods.

F. (L.O. 3) Types of costing systems

1. **Job – order costing system**:

1. Manufactures product to unique customer specification.
2. A job is an individual product or batch for which a company needs cost information.
3. Examples include:
4. Construction companies
5. Shipbuilders

(3) Printing companies

(4) CPA firms

2. **Process costing systems:**

1. Used by companies producing large quantities of identical items
2. Items pass through uniform and continuous production operations
3. Examples include:

(1) Paint and plastic manufacturers

(2) Chemical producers

(3) Metal producers

G. (L.O. 3) Job costs and financial statement accounts.

1. Work in Process Inventory represents the costs of all incomplete jobs.

2. Finished Goods Inventory represents the costs of all completed, but not sold, jobs.

3. Cost of Goods Sold represents the costs of all jobs sold during the period.

1. (L.O. 4) Job – order costing system.
2. Source documents
3. Job cost sheet
4. Material requisition form
5. Time tickets
6. Journal entries
7. Material purchases
8. Material usage
9. Direct labor costs
10. Overhead
11. Actual overhead
12. Applied overhead
13. Completed jobs
14. Cost of goods sold
15. Cost flows

I. (L.O. 5) Allocating overhead to jobs.

1. Actual overhead costs are not used, because they may not be known until after the job is completed and sold.

2. Predetermined overhead rate = \_\_Estimated overhead costs

Estimated level of allocation base

3. Allocation base should be positively correlated to overhead costs.

1. Overhead application rates are based on annual estimates to smooth the month-to-month variations.

J. (L.O. 5) Eliminating over- or underapplied overhead.

1. Closed out to either:

1. Cost of Goods Sold, if immaterial, or

b. Work in Process, Finished Goods, and Cost of Goods Sold, if material.

K. (L.O. 6) Service companies use job-order costing systems, too.

L. (L.O. 7) Modern manufacturing practices and product costing systems.

1. **Just-in-time (JIT) production**
2. Reduce inventory levels
3. Improve quality
4. Streamline production facilities
5. Improve on-time delivery to customers
6. **Lean manufacturing**
7. Related to JIT

b. Focuses on eliminating waste in value chain

1. **Computer-controlled manufacturing**
2. Replace workers with machines/computers
3. Causing a change in companies cost mix to more fixed costs and fewer variable costs
4. **Total quality management (TQM)**
5. Raised product quality
6. Increase production efficiency
7. Continuous improvement at all levels

**ILLUSTRATION 2-1**

**COST- FLOWS**

Raw Materials Work –In-Process Finished Goods Cost of

Inventory Inventory Inventory Goods Sold

D.M. Cost of

D.L. Goods Cost of

Applied Manufactured Goods Sold

O.H.

Wages Payable

Manufacturing

Overhead

Indirect

Materials

Indirect

**ILLUSTRATION 2-2**

**SCHEDULE OF COST OF GOODS MANUFACTURED**

Beginning balance, Work in Process $ XX

Add: Current manufacturing costs:

Direct materials $ XX

Direct labor XX

Manufacturing overhead:

Indirect materials $ XX

Indirect labor XX

Factory utilities XX

Factory depreciation XX

Other XX XX XX

Total costs in Work in Process XX

Less: Ending balance, Work in Process XX

Cost of Goods Manufactured $ XX

**ILLUSTRATION 2-3**

**INCOME STATEMENT**

Sales $ XX

Less Cost of goods sold:

Beginning balance, Finished goods $ XX

Add: Cost of goods manufactured XX

Cost of goods available for sale XX

Less: Ending balance, Finished goods XX XX

Gross Profit XX

Less Nonmanufacturing expenses:

Selling expenses XX

General and administrative expenses XX XX

Net Income (Loss) $ XX

**ILLUSTRATION 2-4**

**JOB-COST JOURNAL ENTRIES**

Material Purchases

Raw Materials Inventory XX

Cash or Accounts Payable XX

Materials Issued to Production

Work in Process (direct materials) XX

Manufacturing Overhead (indirect materials) XX

Raw Materials Inventory XX

Production Labor Costs

Work in Process (direct labor) XX

Manufacturing Overhead (indirect labor) XX

Wages Payable XX

Other Actual Overhead Costs

Manufacturing Overhead XX

Various Accounts XX

Applied Overhead

Work in Process XX

Manufacturing Overhead XX

Completed Jobs

Finished Goods XX

Work in Process XX

Job Sold

Cash or Accounts Receivable XX

Cost of Goods Sold XX

Sales Revenue XX

Finished Goods XX

**ILLUSTRATION 2-5**

**APPLYING OVERHEAD**

Estimated overhead $ 1,000,000

Estimated machine hours 500,000

Actual overhead 980,000

Actual machine hours 495,000

Calculate the predetermined overhead rate

$ 1,000,000 = $2 / MH

500,000 MH

Calculate the overhead applied

495,000 MH × $2/MH = $990,000

Determine the under-or-overapplied overhead

Manufacturing Overhead

(Actual) 980,000 990,000 (Applied)

10,000 (Overapplied)

**ILLUSTRATION 2-6**

**ELIMINATING OVER-OR-UNDER APPLIED OVERHEAD**

Case A: Overapplied overhead $ 10,000

Case B: Underapplied overhead $ 15,000

Work in Process 500,000

Finished Goods 500,000

Cost of Goods Sold 1,000,000

Case A: Overapplied overhead immaterial

Manufacturing Overhead 10,000

Cost of Goods Sold 10,000

Case B: Underapplied overhead is material

%

Work in Process $ 500,000 25 × $ 15,000 = $ 3,750

Finished Goods 500,000 25 × 15,000 = 3,750

Cost of Goods Sold 1,000,000 50 × 15,000 = 7,500

Totals $ 2,000,000 100 = $ 15,000

Work in Process 3,750

Finished Goods 3,750

Cost of Goods Sold 7,500

Manufacturing Overhead 15,000

**MATCHING – A**

Match the following terms to the statements shown below. Use capital letters for your answers. Each term can only be used once.

A. Activity-based costing F. Manufacturing costs

B. Cost driver G. Overapplied overhead

C. Direct labor H. Period costs

D. Full cost I. Process costing system

E. Job cost sheet J. Selling costs

\_\_\_\_\_\_ 1. The costs associated with securing and filling customers’ orders.

\_\_\_\_\_\_ 2. Required under GAAP for valuing inventory on the balance sheet.

\_\_\_\_\_\_ 3. Assigns overhead costs to products using a number of different allocation bases.

\_\_\_\_\_\_ 4. Actual overhead costs are less than applied overhead.

\_\_\_\_\_\_ 5. A form used to accumulate the product costs of each job.

\_\_\_\_\_\_ 6. Used by companies that produce large quantities of identical items.

\_\_\_\_\_\_ 7. The activity used as the basis for developing an overhead rate.

\_\_\_\_\_\_ 8. Consists of direct material, direct labor, and overhead.

\_\_\_\_\_\_ 9. Represents cost of workers directly involved in the production of a job.

\_\_\_\_\_\_ 10. Costs that are expensed as incurred.

**MATCHING – B**

Match the following terms to the statements shown below. Use capital letters for your answers. Each term can only be used once.

A. Allocation base F. Just-in-time manufacturing

B. Cost of goods manufactured G. Manufacturing overhead

C. Cost pool H. Lean Manufacturing

D. Indirect labor cost I. Product cost

E. Job-order costing system J. Underapplied overhead

\_\_\_\_\_\_ 1. Used by companies that produce individual products or batches of products that

that are unique

\_\_\_\_\_\_ 2. Involves minimizing inventory levels

\_\_\_\_\_\_ 3. When actual overhead exceeds applied overhead

\_\_\_\_\_\_ 4. The cost of the jobs completed during the period

\_\_\_\_\_\_ 5. Includes the cost of production supervisors

\_\_\_\_\_\_ 6. Is not expensed until the related product is sold

\_\_\_\_\_\_ 7. Consists of the cost of a major activity

\_\_\_\_\_\_ 8. Focuses on eliminating waste throughout the value chain

\_\_\_\_\_\_ 9. A characteristic used to develop the overhead allocation rate

\_\_\_\_\_\_ 10. The overhead cost that flows into work in process

**MULTIPLE CHOICE – A**

\_\_\_\_\_\_ 1. Which of the following is **not** a product cost?

1. Direct materials
2. Depreciation on finished goods warehouse
3. Insurance on factory building
4. Indirect labor

\_\_\_\_\_\_ 2. Which of the following is **not** a period cost?

1. Overtime premium
2. Commissions
3. Advertising costs
4. General office salaries

\_\_\_\_\_\_ 3. GAAP requires that inventories and cost of goods sold be reported at full cost. Which of the following is defined as full cost?

1. Direct materials, Direct labor, and Variable overhead
2. Direct materials, Direct labor, and Fixed overhead
3. Direct materials, Direct labor, and other Variable costs
4. Direct materials, Direct labor, and Total overhead

\_\_\_\_\_\_ 4. The schedule of cost of goods manufactured is an analysis of which account? A. Finished goods

1. Cost of goods sold
2. Work in process
3. Direct materials

\_\_\_\_\_\_ 5. Which of the following companies would use a job-order costing system?

1. Construction
2. Metal producer
3. Chemical producer
4. Plastic producer

\_\_\_\_\_\_ 6. Which of the following documents would serve as a subsidiary ledger to the Work in Process account?

1. Materials requisition
2. Times sheets
3. Job cost sheet
4. Overhead budget

\_\_\_\_\_\_ 7. The overhead allocation rate is calculated by dividing:

1. actual overhead costs by the actual quantity of the allocation base.
2. the actual overhead costs by the estimated quantity of the allocation base.
3. the estimated overhead costs by the actual quantity of the allocation base.
4. the estimated overhead costs by the estimated quantity of the allocation base.

\_\_\_\_\_\_ 8. Applied overhead is debited to which account?

1. Manufacturing Overhead
2. Work in Process
3. Cost of Goods Sold
4. Finished Goods

\_\_\_\_\_\_ 9. Which of the following is **not** included in manufacturing overhead?

1. Indirect materials
2. Factory employee benefits
3. Depreciation of plant
4. Clerical supplies

\_\_\_\_\_\_ 10. Which of the following is a method of applying overhead?

1. Just-in-time production
2. Activity-based costing
3. Total quantity management
4. Computer-controller manufacturing systems

**MULTIPLE CHOICE – B**

\_\_\_\_\_\_ 1. Which of the following is **not** a manufacturing cost?

1. Direct materials
2. Manufacturing overhead
3. Accounting department costs
4. Direct labor

\_\_\_\_\_\_ 2. Which of the following is a selling cost?

1. Property taxes on factory
2. Janitorial costs for administrative offices
3. Indirect labor costs
4. Depreciation on finished goods warehouse

\_\_\_\_\_\_ 3. Which of the following is added directly to Work in Process?

1. Indirect labor
2. Indirect materials
3. Factory depreciation
4. Direct labor

\_\_\_\_\_\_ 4. Which of the following costs is expensed as incurred?

1. Direct materials
2. Sales salaries
3. Indirect labor
4. Factory depreciation

\_\_\_\_\_\_ 5. Which of the following companies would use a process costing system?

1. Paint producer
2. Shipbuilding company
3. Construction company
4. Printing company

\_\_\_\_\_\_ 6. The cost of goods manufactured is credited to which of the following accounts?

1. Cost of Goods Sold
2. Finished Goods
3. Work in Process
4. Raw Materials

\_\_\_\_\_\_ 7. The cost of goods sold is credited to which of the following accounts?

1. Cost of Goods Manufactured
2. Work in Process
3. Cost of Goods Sold
4. Finished Goods

\_\_\_\_\_\_ 8. An immaterial amount of underapplied overhead is debited to which of the following accounts?

1. Manufacturing Overhead
2. Cost of Goods Sold
3. Work in Process
4. Finished Goods

\_\_\_\_\_\_ 9. A material amount of overapplied overhead is debited to which of the following accounts?

1. Manufacturing Overhead
2. Work in Process
3. Finished Goods
4. Cost of Goods Sold

\_\_\_\_\_\_ 10. The reduction of inventories is an objective of:

1. total quality management.
2. just-in-time production.
3. activity-based costing.
4. computer-controlled manufacturing systems.

# ANSWER SHEET

**MULTIPLE MULTIPLE**

#### MATCHING-A MATCHING-B CHOICE-A CHOICE-B

1. J 1. E 1. B 1. C

2. D 2. F 2. A 2. D

3. A 3. J 3. D 3. D

4. G 4. B 4. C 4. B

5. E 5. D 5. A 5. A

6. I 6. I 6. C 6. C

7. B 7. C 7. D 7. D

8. F 8. G 8. B 8. B

9. C 9. A 9. D 9. A

10. H 10. H 10. B 10. B