Product costing and cost accumulation assignment

For example, public utilities such as electric and gas companies record product costs to justify rate increases that must be approved by state regulatory agencies. 3-2 In a job-order costing system, costs are assigned to batches or job orders of production. Job-order costing systems are used by firms that produce relatively small numbers of dissimilar products. In a process-costing system, production costs are averaged over a large number of product units.

Process-costing systems are used by firms that produce large numbers of nearly identical products. 3-3 Concepts of product costing are applied in service industry firms to inform management of the costs of producing services. For example, banks record the costs of producing financial services for the purposes of planning, cost control, and decision making. 3-4 a. Material requisition form: A document upon which the production department supervisor requests the release of raw materials for production. B.

Labor time record: A document upon which employees record the time they spend working on each production job or batch. C. Job-cost record: A document on which the costs of direct material, direct labor, and manufacturing overhead are recorded for a particular production job or batch. The job-cost sheet is a subsidiary ledger account for the Work-in-process Inventory account in the general ledger. 3-5 Although manufacturing-overhead costs are not directly traceable to products, manufacturing operations cannot take place without incurring overhead costs.

Consequently, overhead costs are applied to products for the purpose f making pricing decisions, in order to ensure that product prices cover all of the costs of production. 3-6 The primary benefit of using a predetermined overhead rate instead of an actual overhead rate is to provide timely information for decision making, planning, and control. 3-7 An advantage of prorating oversupplied or underplayed overhead is that it results in the adjustment of all the accounts affected by inseminating the overhead rate.

However, the use of multiple cost drivers and overhead rates is more complicated and more costly. 3-12 The development Of departmental overhead rates involves a two-stage process. In stage one, overhead costs are assigned to the firm’s production departments. First, overhead costs are distributed to all departments, including both service and production departments. Second, costs are allocated from the service departments to the production departments. At the end of stage one, all overhead costs have been assigned to the production departments.

In stage two, the costs that have been accumulated in the production departments are applied to the production jobs that pass through the departments. 3-13 a. Overhead cost distribution: Assignment of all manufacturing-overhead costs to department overhead centers. B. Service department cost allocation: Allocation of service department costs to production departments on the basis of the relative proportion of each revive department’s output that is used by the various production departments. C.

Overhead application (or overhead absorption): The assignment of all manufacturing overhead costs accumulated in a production department to

the jobs that the department has worked on. These three processes are used in developing departmental overhead rates. 3-14 Job- order costing concepts are used in professional service firms. However, rather than referring to production “ jobs,” such organizations use terminology that reflects their operations. For example, hospitals and law firms assign sots to “ cases,” and governmental agencies often refer to “ programs” or “ missions. It is important in such organizations to accumulate the costs of providing the services associated with a case, project, contract, or program. Such cost information is used for planning, cost control, and pricing, among other purposes. 3-15 A cost driver is a characteristic of an event or activity that results in the incurred of costs by that event or activity. A volume- based cost driver is one that is closely associated with production activity, such as the number of units produced, direct-labor hours, or machine hours. New direct material, direct labor, and manufacturing-overhead costs are incurred, they are applied to Work-in-process Inventory by debiting the account. When goods are finished, the costs are removed from that account with a credit, and they are transferred to Finished-Goods Inventory by debiting that account. Subsequently, when the goods are sold, Finished- Goods Inventory is credited, and the costs are added to Cost of Goods Sold with a debit. 3-17 Hospitals use job-order costing concepts to accumulate the costs associated with each case treated in the hospital.

For example, the costs f treating a heart patient would be assigned to that patient’s case. These costs would include the hospital room, food and beverages, medications, and specialized services such as diagnostic testing and X rays. 3-18 Some manufacturing firms are switching from direct-labor

hours to machine hours or throughput time as the basis for overhead application as a result of increased automation in their factories. With increased automation comes a reduction in the amount Of direct labor used in the production process.

In such cases, direct labor may cease to be a cost driver that varies in a pattern animal to the way in which manufacturing-overhead costs are incurred. 3-19 Oversupplied or underplayed overhead is caused by errors in estimating the predetermined overhead rate. These errors can occur in the numerator (budgeted manufacturing overhead), or in the denominator (budgeted level of the cost driver). 3-20 Oversupplied or underplayed overhead can be closed directly into Cost of Goods Sold, or it can be prorated among Work-in-Process Inventory, Finished-Goods Inventory, and Cost of Goods Sold. -21 A large retailer could use EDI to exchange such documents as purchase orders, hipping and receiving notices, and invoices electronically with its suppliers. Electronic data interchange (EDI) is the direct exchange of data via a computer-to-computer interface. 3-22 An engineer could use bar code technology to record how she spends her time. Bar codes would be assigned to her and to each of her activities. Each time she arrived at work, left work, or changed activity at work, the engineer would scan her personal bar code and the bar code of the appropriate action or activity.