

Accounting Information Systems, 12e (Romney/Steinbart)
Chapter 14 The Production Cycle

1) The AIS compiles and feeds information among the business cycles. What is the relationship between the revenue and production cycles regarding the exchange of information?

A) The revenue cycle provides sales forecast and customer order information to the production cycle, but the production cycle sends information back to revenue about finished goods production.

B) The revenue cycle receives information from the production cycle about raw materials needs.

C) The production cycle sends cost of goods manufactured information back to the revenue cycle.

D) The production cycle does not exchange information with the revenue cycle.

Answer: A

Page Ref: 406

Objective: Learning Objective 1

Difficulty : Moderate

AACSB: Analytic

2) Which of the following is a key feature of materials requirements planning (MRP-II)?

A) Reducing required inventory levels by scheduling production, rather than estimating needs

B) Minimizing or eliminating carrying and stockout costs

C) Determining the optimal reorder points for all materials

D) Determining economic order quantity for all materials

Answer: A

Page Ref: 411

Objective: Learning Objective 1

Difficulty : Easy

AACSB: Analytic

3) The production cycle is different than the revenue and expenditure cycles for all the following reasons except

A) there are no direct external data sources or destinations.

B) cost accounting is involved in all activities.

C) not all organizations have a production cycle.

D) very little technology exists to make activities more efficient.

Answer: A

Page Ref: 406

Objective: Learning Objective 1

Difficulty : Moderate

AACSB: Reflective Thinking

4) An MRP inventory system reduces inventory levels by

A) reducing the uncertainty about when materials are needed.

B) computing exact costs of purchasing and carrying inventory.

C) delivering materials to the production floor exactly when needed and in exact quantities.

D) none of the above

Answer: A

Page Ref: 411

Objective: Learning Objective 1

Difficulty : Easy

AACSB: Analytic

- 5) Which of the following is *not* a product design objective?
- A) Design a product that meets customer requirements.
 - B) Design a quality product.
 - C) Minimize production costs.
 - D) Make the design easy to track for cost accounting purposes.

Answer: D

Page Ref: 409

Objective: Learning Objective 1

Difficulty : Easy

AACSB: Analytic

- 6) The operations list shows
- A) the labor and machine requirements.
 - B) the steps and operations in the production cycle.
 - C) the time expected to complete each step or operation.
 - D) all of the above

Answer: D

Page Ref: 410

Objective: Learning Objective 1

Difficulty : Easy

AACSB: Analytic

- 7) Push manufacturing is officially known as
- A) manufacturing resource planning (MRP).
 - B) just-in-time manufacturing system (JIT).
 - C) the economic order quantity (EOQ) system.
 - D) ahead-of-time production implementation (ATPI).

Answer: A

Page Ref: 411

Objective: Learning Objective 1

Difficulty : Easy

AACSB: Analytic

- 8) Pull manufacturing is officially known as
- A) manufacturing resource planning (MRP).
 - B) just-in-time manufacturing system (JIT).
 - C) the economic order quantity (EOQ) system.
 - D) ahead-of-time production implementation (ATPI).

Answer: B

Page Ref: 411

Objective: Learning Objective 1

Difficulty : Easy

AACSB: Analytic

9) What is the main difference between MRP-II and JIT manufacturing systems?

A) The length of the planning horizon.

B) JIT uses long-term customer demand for planning purposes, but MRP-II uses short-term customer demand for planning purposes.

C) MRP-II relies on EDI, but JIT does not.

D) There are no significant differences between MRP-II and JIT.

Answer: A

Page Ref: 411

Objective: Learning Objective 1

Difficulty : Moderate

AACSB: Analytic

10) A master production schedule is used to develop detailed

A) timetables of daily production and determine raw material needs.

B) reports on daily production and material usage.

C) daily reports on direct labor needs.

D) inventory charts.

Answer: A

Page Ref: 412

Objective: Learning Objective 1

Difficulty : Moderate

AACSB: Analytic

11) The production cycle document that specifies the quantity of each product to be produced and when production should begin is the

A) bill of materials.

B) bill of lading.

C) master production schedule.

D) operations list.

Answer: C

Page Ref: 412

Objective: Learning Objective 1

Difficulty : Easy

AACSB: Analytic

12) What information is necessary to create the master production schedule?

A) engineering department specifications and inventory levels

B) engineering department specifications and sales forecasts

C) special orders information and engineering department specifications

D) sales forecasts, special orders information, and inventory levels

Answer: D

Page Ref: 412

Objective: Learning Objective 1

Difficulty : Easy

AACSB: Analytic

13) The document that authorizes the transfer of raw materials from the storeroom to the production floor is referred to as

- A) a bill of materials.
- B) a production order.
- C) a materials requisition.
- D) a move ticket.

Answer: C

Page Ref: 412

Objective: Learning Objective 1

Difficulty : Moderate

AACSB: Analytic

14) _____ is an efficient way to track and process information about raw materials used in production.

- A) A just-in-time inventory system
- B) Identifying materials with bar codes or RFID tags
- C) A materials resources planning inventory system
- D) Job-order costing

Answer: B

Page Ref: 414

Objective: Learning Objective 1

Difficulty : Easy

AACSB: Analytic

15) The use of various forms of information technology in the production process is referred to as

- A) computerized investments and machines.
- B) computerized integration of machines.
- C) computer-integrated manufacturing.
- D) computer intense manufacturing.

Answer: C

Page Ref: 416

Objective: Learning Objective 1

Difficulty : Easy

AACSB: Analytic

16) Using technology such as robots and computer-controlled machinery to shift from mass production to custom order manufacturing is referred to as

- A) computer integrated manufacturing (CIM).
- B) lean manufacturing.
- C) Six Sigma.
- D) computer-aided design (CAD).

Answer: A

Page Ref: 416

Objective: Learning Objective 1

Difficulty : Moderate

AACSB: Analytic

- 17) Which objective listed below is **not a cost accounting objective** for the production cycle?
- A) provide information for planning, controlling, and evaluating the performance of production operations
 - B) provide cost data about products used in pricing and product mix decisions
 - C) collect and process the information used to calculate inventory and cost of goods sold amounts that appear in the financial statements
 - D) provide tests of audit control functions as part of the AIS**

Answer: D

Page Ref: 418

Objective: Learning Objective 3

Difficulty : Easy

AACSB: Analytic

- 18) Which type of information below **should not be maintained by the AIS in accounting for fixed assets?**

- A) identification/serial number
- B) cost
- C) improvements
- D) market value**

Answer: D

Page Ref: 417

Objective: Learning Objective 3

Difficulty : Easy

AACSB: Analytic

- 19) Direct labor must be tracked and accounted for as part of the production process. Traditionally, direct labor was tracked using _____ but an AIS enhancement is to use _____ to record and track direct labor costs.

- A) job-time tickets; coded identification cards**
- B) move tickets; coded identification cards
- C) employee earnings records; job-time tickets
- D) time cards; electronic time entry terminals

Answer: A

Page Ref: 419

Objective: Learning Objective 1

Difficulty : Moderate

AACSB: Analytic

- 20) Detailed data about **reasons for warranty and repair costs** is considered an applicable control used to mitigate the threat of

- A) underproduction.
- B) overproduction.
- C) poor product design.**
- D) suboptimal investment of fixed assets.

Answer: C

Page Ref: 410

Objective: Learning Objective 3

Difficulty : Easy

AACSB: Analytic

- 21) For replacement of inventories and assets destroyed by fire or other disasters, an organization needs
- A) stand-by facilities.
 - B) adequate insurance coverage.
 - C) source data automation.
 - D) All of the above are correct.

Answer: B

Page Ref: 417

Objective: Learning Objective 2

Difficulty : Moderate

AACSB: Reflective Thinking

- 22) Overproduction or underproduction can be a threat to an organization. To which process or activity does this threat relate?

- A) product design
- B) planning and scheduling
- C) production operations
- D) cost accounting

Answer: B

Page Ref: 415

Objective: Learning Objective 2

Difficulty : Easy

AACSB: Analytic

- 23) What specific control can help restrict the rights of authorized users to only the portion of a database needed to complete their specific job duties?

- A) an access control matrix
- B) passwords and user IDs
- C) closed-loop verification
- D) specific authorization

Answer: A

Page Ref: 408

Objective: Learning Objective 2

Difficulty : Moderate

AACSB: Analytic

- 24) To reduce the threat of theft or destruction of inventories and other fixed assets, the organization may wish to implement which of the following controls?

- A) review and approval of fixed asset acquisitions
- B) improved and more timely reporting
- C) better production and planning systems
- D) document all movement of inventory through the production process

Answer: D

Page Ref: 416

Objective: Learning Objective 2

Difficulty : Moderate

AACSB: Analytic

25) The **best control procedure for accurate data entry** is

- A) the use of on-line terminals.
- B) an access control matrix.
- C) passwords and user IDs.
- D) automation of data collection.**

Answer: D

Page Ref: 409

Objective: Learning Objective 2

Difficulty : Moderate

AACSB: Analytic

26) Which of the following organization controls should be implemented and maintained to counteract the general threat that the loss of production data will greatly slow or halt production activity?

- A) Store key master inventory and production order files on-site only to prevent their theft.
- B) Back up data files only after a production run has been physically completed.
- C) Access controls should apply to all terminals within the organization.**
- D) Allow access to inventory records from any terminal within the organization to provide efficient data entry.

Answer: C

Page Ref: 420

Objective: Learning Objective 2

Difficulty : Moderate

AACSB: Analytic

27) The **threat of loss of data** exposes the company to

- A) the loss of assets.
- B) ineffective decision making.
- C) inefficient manufacturing.
- D) All of the above are correct.**

Answer: D

Page Ref: 409

Objective: Learning Objective 2

Difficulty : Easy

AACSB: Analytic

28) What is the **primary drawback to using a volume-driven base**, such as direct labor or machine hours, to apply overhead to products in a traditional cost accounting system?

- A) The cost accountant may not fully understand how to track direct labor or machine hours.
- B) It is difficult for an AIS to incorporate such a measurement into its system.
- C) It is difficult for an ERP to incorporate such a measurement into its integrated system.
- D) Many overhead costs are incorrectly allocated to products since they do not vary with production volume.**

Answer: D

Page Ref: 420

Objective: Learning Objective 3

Difficulty : Easy

AACSB: Analytic

29) _____ identifies costs with the corporation's strategy for production of goods and services.

A) Activity-based costing

B) Job-order costing

C) Process costing

D) Manufacturing costing

Answer: A

Page Ref: 420

Objective: Learning Objective 3

Difficulty : Moderate

AACSB: Analytic

30) In an Activity-Based Costing (ABC) system, a cause-and-effect relationship is known as a

A) cost stimulator.

B) overhead stimulator.

C) cost driver.

D) cost catalyst.

Answer: C

Page Ref: 421

Objective: Learning Objective 3

Difficulty : Easy

AACSB: Analytic

31) What does the first term in the throughput formula, productive capacity, represent?

A) the maximum number of units that can be produced given current technology

B) the percentage of total production time used to manufacture a product

C) the percentage of "good" units produced given current technology

D) the percentage of "bad" units produced given current technology

Answer: A

Page Ref: 423

Objective: Learning Objective 3

Difficulty : Moderate

AACSB: Analytic

32) _____ are incurred to ensure that products are created without defects the first time.

A) External failure costs

B) Inspection costs

C) Internal failure costs

D) Prevention costs

Answer: D

Page Ref: 423

Objective: Learning Objective 3

Difficulty : Easy

AACSB: Analytic

33) _____ are associated with testing to ensure that products meet quality standards.

- A) External failure costs
- B) Inspection costs
- C) Internal failure costs
- D) Prevention costs

Answer: B

Page Ref: 423

Objective: Learning Objective 3

Difficulty : Easy

AACSB: Analytic

34) The cost of a product liability claim can be classified as a(n)

- A) prevention cost.
- B) inspection cost.
- C) internal failure cost.
- D) external failure cost.

Answer: D

Page Ref: 423

Objective: Learning Objective 3

Difficulty : Easy

AACSB: Analytic

35) Dolly Salem owns and operates a bakery in Charleston, South Carolina. She maintains a file of recipes that list the ingredients used to make her famous cakes and cookies. These recipes are examples of a(an)

- A) bill of materials.
- B) operations list.
- C) production order.
- D) materials requisition.

Answer: A

Page Ref: 410

Objective: Learning Objective 1

Difficulty : Easy

AACSB: Analytic

36) Dolly Salem owns and operates a bakery in Charleston, South Carolina. She maintains a file that lists the sequence of procedures required to make each of her famous cakes and cookies. These instructions are examples of a(an)

- A) bill of materials.
- B) operations list.
- C) production order.
- D) materials requisition.

Answer: B

Page Ref: 410

Objective: Learning Objective 1

Difficulty : Easy

AACSB: Analytic

37) Dolly Salem owns and operates a bakery in Charleston, South Carolina. Each morning she prepares a list that describes the quantity and variety of cakes and cookies that will be prepared during the day.

This list is an example of a(an)

- A) bill of materials.
- B) operations list.
- C) production order.
- D) materials requisition.

Answer: C

Page Ref: 412

Objective: Learning Objective 1

Difficulty : Moderate

AACSB: Analytic

38) Dolly Salem owns and operates a bakery in Charleston, South Carolina. Each afternoon, she prepares a shopping list that describes the quantity and variety of ingredients that she will purchase in the evening from a local food wholesaler. The shopping list is an example of a(an)

- A) bill of materials.
- B) operations list.
- C) production order.
- D) materials requisition.

Answer: D

Page Ref: 412

Objective: Learning Objective 1

Difficulty : Moderate

AACSB: Reflective Thinking

39) Wee Bee Trucking determines the cost per delivery by summing the average cost of loading, unloading, transporting, and maintenance. This is an example of _____ costing.

- A) job-order
- B) unit-based
- C) activity-based
- D) process

Answer: D

Page Ref: 418

Objective: Learning Objective 3

Difficulty : Moderate

AACSB: Analytic

40) Wee Bee Trucking determines the cost per delivery by averaging total cost over number of deliveries. This is an example of _____ costing.

- A) job-order
- B) unit-based
- C) activity-based
- D) process

Answer: A

Page Ref: 418

Objective: Learning Objective 3

Difficulty : Easy

AACSB: Analytic

41) Wee Bee Trucking determines the cost per delivery by identifying variables as cost drivers, and allocating overhead accordingly. This is an example of _____ costing.

- A) job-order
- B) unit-based
- C) activity-based
- D) process

Answer: C

Page Ref: 420

Objective: Learning Objective 3

Difficulty : Easy

AACSB: Analytic

42) In activity-based costing, expenses associated with the purchase of health care insurance for employees are _____ overhead.

- A) batch-related
- B) product-related
- C) companywide
- D) expenditure-based

Answer: C

Page Ref: 421

Objective: Learning Objective 3

Difficulty : Easy

AACSB: Analytic

43) In activity-based costing, the expenses associated with planning and design of new products are _____ overhead.

- A) batch-related
- B) product-related
- C) companywide
- D) expenditure-based

Answer: B

Page Ref: 421

Objective: Learning Objective 3

Difficulty : Moderate

AACSB: Analytic

44) At the end of each production run, preventive maintenance is done on the assembly line. The expenses associated with this maintenance are _____ overhead.

- A) batch-related
- B) product-related
- C) companywide
- D) department-based

Answer: A

Page Ref: 420

Objective: Learning Objective 3

Difficulty : Moderate

AACSB: Analytic

45) Which of the following is *not* a benefit of activity-based costing?

- A) Lower cost
- B) Better decisions
- C) Improved cost management
- D) Identification of cost drivers

Answer: A

Page Ref: 421

Objective: Learning Objective 3

Difficulty : Easy

AACSB: Analytic

46) The expenses associated with a product recall are _____ costs.

- A) prevention
- B) inspection
- C) internal failure
- D) external failure

Answer: D

Page Ref: 423

Objective: Learning Objective 2

Difficulty : Easy

AACSB: Analytic

47) The expenses associated with quality assurance activities are _____ costs.

- A) prevention
- B) inspection
- C) internal failure
- D) external failure

Answer: B

Page Ref: 423

Objective: Learning Objective 2

Difficulty : Easy

AACSB: Analytic

48) The expenses associated with the use of clean rooms in the production of computer hard drives are _____ costs.

- A) prevention
- B) inspection
- C) internal failure
- D) external failure

Answer: A

Page Ref: 423

Objective: Learning Objective 2

Difficulty : Easy

AACSB: Analytic

49) The expenses associated with disposal of defective products are _____ costs.

- A) prevention
- B) inspection
- C) internal failure
- D) external failure

Answer: C

Page Ref: 423

Objective: Learning Objective 2

Difficulty : Easy

AACSB: Analytic

50) Labor productivity is measured by the quantity produced divided by the labor time required to produce it. All other things held constant, an increase in labor productivity will increase throughput by

- A) increasing productive capacity.
- B) increasing productive processing time.
- C) increasing yield.
- D) increasing all components of throughput.

Answer: A

Page Ref: 423

Objective: Learning Objective 1

Difficulty : Moderate

AACSB: Analytic

51) In addition to identifying and dealing with defective products before they reach customers, quality management is concerned with initiating process changes that will reduce the number of defective units produced. All other things held constant, a decrease in the number of defective units will increase throughput by

- A) increasing productive capacity.
- B) increasing productive processing time.
- C) increasing yield.
- D) increasing all components of throughput.

Answer: C

Page Ref: 423

Objective: Learning Objective 2

Difficulty : Moderate

AACSB: Analytic

52) Folding Squid Technologies has installed a new production monitoring system that is expected to reduce system breakdowns by 28%. This system will increase throughput by

- A) increasing productive capacity.
- B) increasing productive processing time.
- C) increasing yield.
- D) increasing all components of throughput.

Answer: B

Page Ref: 423

Objective: Learning Objective 1

Difficulty : Moderate

AACSB: Analytic

53) Clint Smith operates a machine shop in Burbank, California. He places bids on small lot production projects submitted by firms throughout the Los Angeles area. Which of the following is *most* likely to be a cost driver for the allocation of utility costs?

- A) Number of units produced
- B) Number of labor hours
- C) Number of projects completed
- D) Sales revenue

Answer: C

Page Ref: 421

Objective: Learning Objective 1

Difficulty : Difficult

AACSB: Reflective Thinking

54) Folding Squid Technologies initiated a just-in-time inventory system in 2010. Now the production manager, Chan Ziaou, wants to apply the same principles to the entire production process. His recommendation is for the company adopt a

- A) lean manufacturing system.
- B) master production scheduling system.
- C) manufacturing resource planning system.
- D) computer-integrated manufacturing system.

Answer: A

Page Ref: 411

Objective: Learning Objective 1

Difficulty : Moderate

AACSB: Analytic

55) This document appears to be a

No. 2345				
Issued To: Assembly		Issue Date: 08/15/2009		Production Order Number: 62913
Part Number	Description	Quantity	Unit Cost \$	Total Cost \$
115	Calculator Unit	2,000	2.95	5,900.00
135	Lower Casing	2,000	.45	900.00
198	Screw	16,000	.02	320.00
178	Battery	2,000	.75	1,500.00
136	Upper Casing	2,000	.80	1,600.00
199	Screw	12,000	.02	240.00
Issued by: AKL				<u>10,460.00</u>
Received by: <i>QWS</i>		Costed by: <i>ZBD</i>		

- A) Materials Requisition.
- B) Production Order.
- C) Bill of Materials.
- D) Move Ticket between production and warehouse functions.

Answer: A

Page Ref: 412

Objective: Learning Objective 1

Difficulty : Moderate

AACSB: Reflective Thinking

56) How many side panels should the company budget for use in week two?

Bill of Materials

Finished Product: DVD Player		
<u>Part Number</u>	<u>Description</u>	<u>Quantity</u>
105	Control Unit	1
125	Back Panel	1
148	Side Panel	2
155	Top/Bottom Panel	2
173	Timer	1
195	Front Panel	1
199	Screw	6

Operations List for: Create Side Panel			
<u>Operation Number</u>	<u>Description</u>	<u>Machine Number</u>	<u>Standard Time (m:s)</u>
105	Cut to shape	ML15-12	2:00
106	Corner cut	ML15-9	3:15
124	Turn and shape	S28-17	4:00
142	Finish	F54-5	7:10
155	Paint	P89-1	9:30

MASTER PRODUCTION SCHEDULE								
Product Number	120		Description:	DVD Player				
Lead time: ^a	Week Number							
1 week	1	2	3	4	5	6	7	8
Quantity on hand	500	350 ^b	350	300	350	300	450	300
Scheduled production	150 ^c	300	250	300	250	400	250	300
Forecasted sales	300	300	300	250	300	250	400	250
Net available	350 ^d	350	300	350	300	450	300	350

Answer: 600 (2 per finished unit x 300 units scheduled to be produced)

Page Ref: 412

Objective: Learning Objective 1

Difficulty : Moderate

AACSB: Analytic

57) How many labor hours should the company budget in week three to produce all side panels needed? Round to the nearest hour, if necessary.

Bill of Materials

Finished Product: DVD Player		
<u>Part Number</u>	<u>Description</u>	<u>Quantity</u>
105	Control Unit	1
125	Back Panel	1
148	Side Panel	2
155	Top/Bottom Panel	2
173	Timer	1
195	Front Panel	1
199	Screw	6

Operations List for: Create Side Panel			
<u>Operation Number</u>	<u>Description</u>	<u>Machine Number</u>	<u>Standard Time (m:s)</u>
105	Cut to shape	ML15-12	2:00
106	Corner cut	ML15-9	3:15
124	Turn and shape	S28-17	4:00
142	Finish	F54-5	7:10
155	Paint	P89-1	9:30

MASTER PRODUCTION SCHEDULE								
Product Number	120		Description:	DVD Player				
Lead time: ^a	Week Number							
1 week	1	2	3	4	5	6	7	8
Quantity on hand	500	350 ^b	350	300	350	300	450	300
Scheduled production	150 ^c	300	250	300	250	400	250	300
Forecasted sales	300	300	300	250	300	250	400	250
Net available	350 ^d	350	300	350	300	450	300	350

Answer: 213 hours ((25.55 minutes per finished unit x 2 panels per finished unit x 250 units scheduled to be produced)/60 minutes per hour)

Page Ref: 412

Objective: Learning Objective 1

Difficulty : Moderate

AACSB: Analytic

58) Identify and discuss the two documents that are the result of product design activities.

Answer: The two documents that are the result of product design activity are the bill of materials and the operations list. The bill of materials specifies the part number, description, and quantity of each component used in a finished product. The operations list specifies the labor and machine requirements needed to manufacture the product. The operations list is sometimes also called a routing sheet, since it indicates how a product moves through the factory.

Page Ref: 410

Objective: Learning Objective 1

Difficulty : Moderate

AACSB: Analytic

59) Explain what CIM means and its benefits.

Answer: CIM is the acronym that stands for computer integrated manufacturing. It incorporates various forms of information technology in the production process such as the use of robots and computer-controlled machinery. The benefit of CIM is that it can significantly reduce production costs.

Page Ref: 416

Objective: Learning Objective 1

Difficulty : Easy

AACSB: Analytic

60) What types of data are accumulated by cost accounting? What is the accountant's role in cost accounting?

Answer: There are four types of cost data accumulated in a cost accounting system: raw materials; direct labor; machinery and equipment; and, manufacturing overhead. The role of the accountant is to control costs by assessing how product mix changes affect total manufacturing overhead and by identifying factors that drive changes in costs.

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Objective: Learning Objective 3

Difficulty : Moderate

AACSB: Analytic

61) What role does the AIS play in the production cycle?

Answer: A company's AIS plays a vital role in the production cycle. Accurate and timely cost accounting information is essential input to decisions about the following: Product mix (what to produce), Product pricing, Resource allocation and planning (e.g., whether to make or buy a product, relative profitability of different products), Cost management (planning and controlling manufacturing costs, evaluating performance). These decisions require much more detailed information about costs than the data needed to prepare financial statements in accordance with generally accepted accounting principles (GAAP). Thus, the design of a company's production cycle AIS must go beyond merely meeting external financial reporting requirements.

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Objective: Learning Objective 3

Difficulty : Difficult

AACSB: Analytic

62) Discuss the role the accountant can play in the production cycle.

Answer: The accountant can play a role and provide meaningful input into each area of the production cycle. Accountants should participate in product design since 65 to 80% of product costs are determined at this stage of the production process. Accountant analysis of cost behavior and variations in product design can prove invaluable to the organization in this stage of production. In the planning and scheduling stage, accountants can help a company choose whether MRP-II or JIT is more appropriate for planning and scheduling. The accountant also should verify that the AIS collects and reports costs in a manner consistent with the production planning techniques it has chosen to use. In production operations, the accountant should develop a working knowledge of CIM in order to understand its effect on the AIS. The accountant will also be integrally involved with the cost accounting system, whether it is a traditional cost accounting system or an activity-based cost accounting system. Accountants can provide excellent insight into the cost aspect of the production process, which is key to the profitability and success of the organization.

Page Ref: 406

Objective: Learning Objective 4

Difficulty : Difficult

AACSB: Analytic

63) Identify and discuss the two common methods of production planning.

Answer: The two common methods of production planning are manufacturing resource planning (MRP-II) and just-in-time (JIT,) or lean, manufacturing.

MRP-II seeks to balance the existing production capacity and raw materials required to meet forecasted sales demand. MRP-II systems are referred to as push manufacturing, since products are made in expectation of customer demand.

JIT manufacturing seeks to minimize or eliminate inventories of raw materials, work in process, and finished goods. A JIT manufacturing system only produces a product in response to customer demands. JIT systems are called pull manufacturing systems, since goods are produced only in response to customer demands.

Page Ref: 411

Objective: Learning Objective 1

Difficulty : Moderate

AACSB: Analytic

64) What are the two major types of cost accounting systems and what are the differences between the two?

Answer: Most companies will use either job-order or process costing to assign production costs in the production of products. Job-order costing is designed to assign costs to specific production batches, or jobs (hence the name "job-order"). It is used in a production process where a product is specifically, discreetly identifiable (such as a custom-built home or office building). It should be noted that job-order costing can also be successfully used in the service sector by law or accounting firms to calculate and track the costs incurred in legal cases and audits, respectively. Process costing differs in that it assigns costs to each process, or work center, in the production cycle, and then averages these costs across the number of units produced. Process costing is useful whenever similar or homogenous goods are produced in mass quantities, such as laundry detergent, some types of food items, or soft drinks. Costs can be assigned at each stage in the production process for these items, and then an average total unit cost for the product can be calculated based on output. Process costing has also been incorporated by mutual funds to find the average cost of handling customer deposits and withdrawals.

Page Ref: 418

Objective: Learning Objective 3

Difficulty : Moderate

AACSB: Analytic

65) Describe five threats in the production cycle and the applicable control procedures used to mitigate each threat.

Answer:

Threat 1: Unauthorized transactions □ Controls: Accurate sales forecasts, maintaining accurate inventory records; authorizing production; restricting access to the production planning program; and review and approval of capital expenditures

Threat 2: Theft or destruction of inventories and fixed assets □ Controls: Restrict physical access to inventories; document internal physical flow of assets; proper segregation of duties; periodic physical count and reconciliation of inventory; document and authorize materials requests and disposal of fixed assets; and have adequate insurance

Threat 3: Recording and posting errors □ Controls: Automate data collection procedures; online data entry edit controls; and conduct periodic physical inventory and fixed asset counts

Threat 4: Loss of data □ Controls: Regularly back up files; keep additional master files; use internal and external file labels; restrict access; and keep logs of all activities

Threat 5: Inefficiencies and quality control problems □ Controls: Prepare regular performance reports; highlight exception reports and variances; compare actual performance to budgeted performance; measure throughput; and measure the cost of quality control

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Objective: Learning Objective 2

Difficulty : Moderate

AACSB: Analytic

66) Discuss two measures that can address the threats of inefficiencies and quality controls problems.
Answer: Throughput represents the number of good (nondefective) units produced in a given period of time. It consists of three factors, (productive capacity, productive processing time, and yield), each of which can be separately controlled as shown in the formula: $\text{Throughput} = (\text{total units produced} / \text{processing time}) \times (\text{processing time} / \text{total time}) \times (\text{good units} / \text{total units})$. Knowing about quality costs can help companies determine the effects of actions taken to improve yield and identify areas for further improvement. The main objective of quality control is to minimize the sum of the four types of costs recognizing the trade-offs between costs. These costs are: prevention costs, inspection costs, internal failure costs, and external failure costs.

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Objective: Learning Objective 2

Difficulty : Moderate

AACSB: Analytic

67) Discuss the criticisms of traditional cost accounting methods.

Answer: There can be an inappropriate allocation of overhead costs. The factors contributing to this problem are: A volume-driven form used for activity-driven overhead costs assigned to products. Overhead cost is either over- or understated due to allocation method used. The system may distort costs across products, especially if manufacturing is highly automated and performance measures do not accurately reflect the effects of factory automation: Measures collected are not integrated with performance measures. Lack of information about standard costs, variance, and functioning of production process. Lack of information about defect rates, breakdown frequency, percentage for finished goods completed without rework, etc.

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Objective: Learning Objective 3

Difficulty : Difficult

AACSB: Reflective Thinking

68) What is activity-based costing (ABC)? How does it compare with the traditional costing methods? What are the benefits of activity-based costing?

Answer: Activity-based costing (ABC) traces costs to the activities that created them and then allocates those costs to products or shipments thereby linking the costs to a corporate strategy. ABC versus traditional cost systems: ABC attempts to directly trace most costs to products, ABC uses more cost pools to accumulate manufacturing overhead instead of lumping all overhead costs together as in the traditional approach. For example: 1) Batch-related overhead results in larger quantities having lower batch-related costs than smaller quantities; 2) Product-related overhead results in costs being allocated to only the product(s) that are linked to the cost; and 3) Company-wide overhead results in such overhead costs (e.g., rent) being allocated based on department or plant rates. ABC uses cost drivers that have a cause-and-effect relationship on the products in order to allocate the costs instead of using the traditional financial variables. Advantages of ABC systems: Better decisions because can be made with an ABC system because product cost data is more accurate and data is used to improve product design. Improved cost management is seen due to four reasons: 1) There are clearer measures of managerial actions on profitability. 2) The consumption of resources is measured in addition to the amount spent on acquiring resources. 3) The cost of activity capability = Cost of activity used + Cost of unused capacity. 4) Performance reports help direct managerial attention to the effect of policy decision on all costs.

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Objective: Learning Objective 3

Difficulty : Difficult

AACSB: Analytic