

Cost Accounting: A Managerial Emphasis, 16e, Global Edition (Horngren)
Chapter 4 Job Costing

4.1 Objective 4.1

1) A cost is considered direct if it can be traced to a particular cost object in a cost effective way which means it can be

- A) traced easily with the aid of technology
- B) traced in a manner that is accurate
- C) traced in an economically feasible way
- D) possibly traced accurately with an investment in hardware and software

Answer: C

Diff: 1

Objective: 1

AACSB: Analytical thinking

2) A _____ is anything for which a measurement of costs is desired.

- A) cost-allocation base
- B) cost pool
- C) cost object
- D) cost-application base

Answer: C

Diff: 1

Objective: 1

AACSB: Analytical thinking

3) A _____ is a grouping of individual indirect cost items.

- A) cost-allocation base
- B) cost assignment
- C) cost pool
- D) job-costing system

Answer: C

Diff: 1

Objective: 1

AACSB: Analytical thinking

4) A manufacturer utilizes three separate indirect cost pools. Which of the following is true?

- A) Each indirect cost pool utilizes a separate cost-allocation rate
- B) Each indirect cost pool is a subset of total direct costs
- C) Each indirect cost pool relates to multiple cost centers
- D) Each indirect cost pool utilizes the same cost-allocation rate for all costs incurred

Answer: A

Diff: 1

Objective: 1

AACSB: Analytical thinking

EA

5) Direct costs _____.

- A) are anything for which a measurement of costs is desired
- B) are costs related to a particular cost object that can be traced to that cost object in an economically feasible manner
- C) focus specifically on the costing needs of the CFO
- D) are costs related to a particular cost object that cannot be traced to that cost object in a cost-effective manner

Answer: B

Diff: 2

Objective: 1

AACSB: Analytical thinking

6) In a costing system, _____.

- A) cost tracing allocates indirect costs
- B) cost allocation assigns direct costs
- C) a cost-allocation base can be either financial or nonfinancial
- D) a cost object should be a product and not a department or a geographic territory

Answer: C

Diff: 2

Objective: 1

AACSB: Analytical thinking

7) Assigning direct costs to a cost object is called _____.

- A) cost allocation
- B) cost assignment
- C) cost pooling
- D) cost tracing

Answer: D

Diff: 1

Objective: 1

AACSB: Analytical thinking

8) _____ is the process of assigning indirect costs to products.

- A) Cost allocation
- B) Job cost recording
- C) Cost pooling
- D) Cost tracing

Answer: A

Diff: 1

Objective: 1

AACSB: Analytical thinking

EA

9) Allocating indirect costs to departments based on the relative revenue earned by those departments is done based on which of the following criterion?

- A) direct hours utilized
- B) benefits received
- C) material resources used
- D) cause-and-effect relationships

Answer: B

Diff: 1

Objective: 1

AACSB: Analytical thinking

10) Which of the following includes both traced direct costs and allocated indirect costs?

- A) cost tracing
- B) cost pools
- C) cost assignments
- D) cost allocations

Answer: C

Diff: 1

Objective: 1

AACSB: Analytical thinking

11) The cost allocation base _____.

- A) is a grouping of individual indirect cost items
- B) are costs related to a particular cost object that cannot be traced to that cost object in an economically feasible way
- C) is anything for which a measurement of costs is desired
- D) is a systematic way to link an indirect cost or group of indirect costs to cost objects

Answer: D

Diff: 1

Objective: 1

AACSB: Analytical thinking

12) Direct costs are allocated to the cost object using a cost-allocation method.

Answer: FALSE

Explanation: Indirect costs are allocated to the cost object using a cost-allocation method.

Diff: 1

Objective: 1

AACSB: Analytical thinking

13) A cost object is anything for which a measurement of costs is desired.

Answer: TRUE

Diff: 1

Objective: 1

AACSB: Analytical thinking

14) Direct costs of a cost object are costs related to a particular cost object that can be allocated to that cost object in an economically feasible (cost-effective) way.

Answer: FALSE

Explanation: Direct costs of a cost object — costs related to a particular cost object that can be traced to that cost object in an economically feasible (cost-effective) way.

Diff: 1

Objective: 1

AACSB: Analytical thinking

15) The cost-allocation base is a systematic way to link an indirect cost or group of indirect costs to cost objects.

Answer: TRUE

Diff: 2

Objective: 1

AACSB: Analytical thinking

16) Cost objects may be jobs, products, or customers.

Answer: TRUE

Diff: 1

Objective: 1

AACSB: Analytical thinking

17) When an organization allocated indirect costs to departments by relative size of the budgets, it is based on the criterion of benefits received.

Answer: FALSE

Explanation: When an organization allocated indirect costs to departments by relative size of the budgets, it is based on the criterion of ability to bear costs.

Diff: 1

Objective: 1

AACSB: Analytical thinking

EA

18) For each item below indicate the source documents that would most likely authorize the journal entry in a job-costing system.

Required:

- a. direct materials purchased
- b. direct materials used
- c. direct manufacturing labor
- d. indirect manufacturing labor
- e. finished goods control
- f. cost of goods sold

Answer:

- a. purchase invoice
- b. materials requisition record
- c. labor time card/record
- d. labor time card
- e. job-cost record
- f. sales invoice

Diff: 2

Objective: 1

AACSB: Analytical thinking

19) Differentiate between a cost pool and a cost-allocation base.

Answer: A cost pool is a grouping of individual indirect cost items. The cost-allocation base (number of machine-hours) is a systematic way to link an indirect cost or group of indirect costs (operating costs of all metal-cutting machines) to cost objects (different products).

Diff: 2

Objective: 1

AACSB: Analytical thinking

4.2 Objective 4.2

1) Process costing is _____.

- A) used to enhance employees' job satisfaction
- B) used by businesses to price unique products or identical products produced in batches
- C) used by businesses to price identical products
- D) used by businesses when manufacturing goods above normal capacity

Answer: C

Diff: 1

Objective: 2

AACSB: Analytical thinking

EA

2) Process costing _____.

- A) allocates all product costs, including materials, and labor
- B) results in different costs for different units produced
- C) is commonly used by general contractors who construct custom-built homes
- D) is used exclusively in manufacturing

Answer: A

Diff: 2

Objective: 2

AACSB: Analytical thinking

3) Job costing is _____.

- A) used by businesses to price identical products
- B) used by businesses to price unique products for different jobs
- C) used to calculate equivalent units
- D) used to calculate the percentage of work completed

Answer: B

Diff: 1

Objective: 2

AACSB: Analytical thinking

4) Job costing _____.

- A) cannot be used by the service industry
- B) records the flow of costs for each product or service
- C) allocates an equal amount of cost to each unit made during a time period
- D) is used when each unit of output is identical

Answer: B

Diff: 2

Objective: 2

AACSB: Analytical thinking

5) Job-costing is likely to be used by _____.

- A) oil refining companies
- B) advertising agencies
- C) Mortgage payment processors
- D) breakfast cereal producers

Answer: B

Diff: 2

Objective: 2

AACSB: Analytical thinking

EA

6) Which of the following differentiates job costing from process costing?

- A) Job costing is used when each unit of output is identical, and process costing deals with unique products.
- B) Job costing is used when each unit of output is identical and not produced in batches, and process costing deals with unique products produced on large scale.
- C) Process costing is used when each unit of output is identical, and job costing deals with unique products not produced in batches.
- D) Job costing is used by manufacturing industries, and process costing is used by service industries.

Answer: C

Diff: 3

Objective: 2

AACSB: Analytical thinking

7) Which of the following companies will use a process costing system?

- A) an oil refining company
- B) a manufacturer of ships
- C) a custom kitchen cabinet company
- D) an advertising firm

Answer: A

Diff: 1

Objective: 2

AACSB: Analytical thinking

8) A company may use job costing to assign costs to different product lines and then use process costing to calculate unit costs within each product line.

Answer: TRUE

Diff: 2

Objective: 2

AACSB: Analytical thinking

9) In each period, job costing divides the total cost of producing an identical or similar product produced in batches by the total number of units produced to obtain a per-unit cost.

Answer: FALSE

Explanation: Job costing is used to accumulate costs separately for each product or service.

Diff: 2

Objective: 2

AACSB: Analytical thinking

10) Oil refining companies primarily use job costing to estimate costs.

Answer: FALSE

Explanation: Process costing is used to estimate costs in oil refining companies as the same process is used to extract oil.

Diff: 1

Objective: 2

AACSB: Analytical thinking

11) In a job-costing system the cost object is an individual unit, batch, or lot of a distinct product or service.

Answer: TRUE

Diff: 1

Objective: 2

AACSB: Analytical thinking

12) Process costing is used to assign manufacturing costs to unique batches of a product.

Answer: FALSE

Explanation: Job costing is used to assign manufacturing costs to unique batches of a product.

Diff: 1

Objective: 2

AACSB: Analytical thinking

13) Using job costing would not be appropriate in the shipping industry.

Answer: FALSE

Explanation: Since each package or item shipped is unique or has different demand on resources such as packaging, methods of shipping, etc., job costing would be more appropriate than process costing.

Diff: 1

Objective: 2

AACSB: Analytical thinking

14) Whether a company chooses to use either a job ob costing system or process costing system depends on the nature of the product or service - whether the products or services are heterogeneous or homogeneous.

Answer: TRUE

Diff: 2

Objective: 2

AACSB: Analytical thinking

15) Describe job-costing and process-costing systems. Explain when it would be appropriate to use each.

Answer: Job costing accumulates costs for different jobs required by specific customers. Process costing computes and allocates an equal amount of cost to each product. Job costing is the logical choice when the production process has many distinct products or many heterogeneous jobs, while process costing is typically used when it is not necessary to keep separate cost records for individual jobs and the products are relatively homogeneous.

Diff: 2

Objective: 2

AACSB: Analytical thinking

4.3 Objective 4.3

1) Which of the following are reasons for using longer periods, such as a year, to calculate indirect cost rates?

- A) shorter the period, the greater is the influence of seasonal patterns on the amount of costs
- B) longer the period, the greater is the influence of seasonal patterns on the amount of costs
- C) shorter the period, the smaller is the influence of seasonal patterns on the amount of opportunity costs
- D) longer the period, the smaller is the influence of seasonal patterns on the amount of opportunity costs

Answer: A

Diff: 1

Objective: 3

AACSB: Analytical thinking

2) The actual indirect-cost rate is calculated by _____.

- A) dividing actual total indirect costs by the actual total quantity of the cost-allocation base
- B) multiplying actual total indirect costs by the actual total quantity of the cost-allocation base
- C) dividing the actual total quantity of the cost allocation base by actual total indirect costs
- D) multiplying the actual total quantity of the cost allocation base by actual total indirect costs

Answer: A

Diff: 1

Objective: 3

AACSB: Analytical thinking

3) Actual costing is a costing system that traces direct costs to a cost object by _____.

- A) using the budgeted direct cost rates times the budgeted quantities of direct-cost inputs
- B) using the actual direct costs rates times the budgeted quantities of the direct-cost inputs
- C) using the actual direct cost rates times the actual quantities of the direct-cost inputs
- D) using the budgeted direct cost rates times the actual quantities of the direct cost inputs

Answer: C

Diff: 1

Objective: 3

AACSB: Analytical thinking

4) An example of a numerator reason for calculating annual indirect-cost rates includes _____.

- A) fewer production workdays in a month
- B) cost of raw materials purchased
- C) higher snow-removal costs during the winter
- D) the number of units produced

Answer: D

Diff: 3

Objective: 3

AACSB: Analytical thinking

EA

5) An example of a denominator reason for calculating annual indirect-cost rates includes _____.

- A) Budgeted annual indirect costs divided by actual quantity of cost-allocation base
- B) semi-annual insurance payments in March and September
- C) higher levels of output demanded during the fall months
- D) prepaid rent in January for the months January through June

Answer: C

Diff: 3

Objective: 3

AACSB: Analytical thinking

6) When calculating indirect cost rates, the longer the time period, the greater the influence of seasonal patterns on the amount of costs.

Answer: FALSE

Explanation: The shorter the time period, the greater the influence of seasonal patterns on the amount of costs.

Diff: 1

Objective: 3

AACSB: Analytical thinking

7) The formula for the predetermined indirect cost rate is:

- A) Budgeted annual indirect costs divided by actual quantity of cost-allocation base
- B) Budgeted annual indirect costs divided by budgeted annual quantity of cost-allocation base
- C) Actual annual indirect costs divided by budgeted annual quantity of cost-allocation base
- D) Actual annual indirect costs divided by actual annual quantity of cost-allocation base

Answer: A

Diff: 1

Objective: 3

AACSB: Analytical thinking

8) The actual indirect-cost rate is calculated by dividing actual total indirect costs by the budgeted total quantity of the cost-allocation base.

Answer: FALSE

Explanation: $\text{Actual indirect cost rate} = \text{Actual annual indirect costs} / \text{Actual annual quantity of the cost-allocation base}$.

Diff: 1

Objective: 3

AACSB: Analytical thinking

9) A manufacturer estimates that it will incur variable indirect costs for the month of October of \$70,000 and \$30,000 of fixed costs. The company uses direct labor hours to calculate the predetermined overhead rate and predicted that 3,000 direct labor hours would be used in October. Actual direct labor hours amounted to 3,200.

Required:

- A) What is the variable predetermined indirect rate for October?
- B) What is the fixed predetermined indirect cost rate for October?
- C) What is the total allocation rate per direct labor hour for October?

Answer: A) $\$70,000/3,000 = \23.33 per direct labor hour

B) $\$30,000/3000 = \10.00 per direct labor hour

C) $\$23.33 + \$10.00 = \$33.33$ per direct labor hour

Diff: 2

Objective: 3

AACSB: Analytical thinking

4.4 Objective 4.4

1) A job that shows low profitability may be the result of _____.

- A) excessive usage of direct materials
- B) inefficient direct manufacturing labor
- C) overpricing the job
- D) insurance claim of the damaged goods

Answer: B

Diff: 2

Objective: 4

AACSB: Analytical thinking

2) For a given job the direct costs associated with the job are _____.

- A) actual overhead that has been applied to the job
- B) raw materials that can be traced to the job in an economically feasible way
- C) All sunk costs that can be traced to the job in an economically feasible way
- D) all fixed costs

Answer: B

Diff: 2

Objective: 4

AACSB: Analytical thinking

EA

3) Place the following steps in the order suggested by the seven steps used to assign costs to individual jobs:

- A. Identify indirect costs
- B. Compute the total cost of the job
- C. Select cost-allocation bases
- D. Compute the indirect cost rate

- A) ACDB
- B) CADB
- C) BACD
- D) DCAB

Answer: B

Diff: 2

Objective: 4

AACSB: Analytical thinking

4) The basic source document for direct manufacturing labor is the _____.

- A) job-cost record
- B) materials-requisition record
- C) labor-time record
- D) labor-requisition record

Answer: C

Diff: 1

Objective: 4

AACSB: Analytical thinking

5) Problems with costing occur when _____.

- A) incorrect job numbers are recorded on source documents
- B) bar coding is used to record materials used on the job
- C) a computer screen requests an employee number before that employee is able to work on information related to a specific job
- D) incorrect product delivery forms are entered into the system

Answer: A

Diff: 2

Objective: 4

AACSB: Analytical thinking

6) The budgeted indirect-cost rate for each cost pool is computed as _____.

- A) budgeted annual indirect costs divided by budgeted annual quantity of cost allocation base
- B) budgeted annual quantity of cost allocation base divided by budgeted annual indirect costs
- C) actual annual indirect costs divided by budgeted annual quantity of cost allocation base
- D) budgeted annual indirect costs divided by budgeted actual quantity of cost allocation base

Answer: A

Diff: 2

Objective: 4

AACSB: Analytical thinking

EA

7) If indirect-cost rates are calculated monthly, distortions might occur because of _____.

- A) rental costs paid monthly
- B) property tax payments made in July and December
- C) routine monthly preventive-maintenance costs that benefit future months
- D) salary hikes at the beginning of the financial year

Answer: B

Diff: 2

Objective: 4

AACSB: Analytical thinking

8) Smith Office Equipment Company's budgeted manufacturing overhead is \$5,400,000. Overhead is allocated on the basis of direct labor hours. The budgeted direct labor hours for the period are 30,000. What is the manufacturing overhead rate?

- A) \$15.00
- B) \$54.00
- C) \$195.00
- D) \$180.00

Answer: D

Explanation: $\$5,400,000 / 30,000 \text{ hours} = \180.00

Diff: 2

Objective: 4

AACSB: Application of knowledge

9) X-Industries manufactures 3-D printers. For each unit, \$3,400 of direct material is used and there is \$2,600 of direct manufacturing labor at \$16 per hour. Manufacturing overhead is applied at \$20 per direct manufacturing labor hour. Calculate the profit earned on 46 units if each unit sells for \$9,500.

- A) \$65,320
- B) \$35,880
- C) \$11,500
- D) \$3,250

Answer: C

Explanation: $\$3,400 + \$2,600 + ((\$2,600 / \$16) \times \$20) = \$9,250$

Profit earned on 46 units = $(\$9,500 - \$9,250) \times 46 \text{ units} = \$11,500$

Diff: 3

Objective: 4

AACSB: Application of knowledge

10) In a job-costing system, a manufacturing firm typically uses an indirect-cost rate to estimate the _____ allocated to a job.

- A) direct materials
- B) direct labor
- C) manufacturing overhead costs
- D) total costs

Answer: C

Diff: 2

Objective: 4

AACSB: Analytical thinking

EA

11) A job-cost sheet details the _____.

- A) direct materials purchased and paid
- B) direct labor costs incurred
- C) indirect labor costs incurred
- D) actual indirect overhead costs incurred

Answer: B

Diff: 2

Objective: 4

AACSB: Analytical thinking

12) A job-cost record uses information from _____.

- A) a materials-requisition record to record raw material purchases from suppliers
- B) a materials-requisition report to record the type and quantity of item received in an order from a supplier
- C) a labor-time card to record an employee's wage rate and hours spent on a particular job
- D) the bill of materials to ensure the goods are of the prescribed quality

Answer: C

Diff: 2

Objective: 4

AACSB: Analytical thinking

13) _____ is used to record and accumulate all the costs assigned to a specific job.

- A) Job-cost record
- B) Materials-requisition record
- C) Cost-allocation base
- D) Labor-requisition record

Answer: A

Diff: 1

Objective: 4

AACSB: Analytical thinking

14) An increase in direct labor cost per unit _____.

- A) increases the fixed cost
- B) increases profits
- C) increases the variable cost
- D) increases overhead costs

Answer: C

Diff: 2

Objective: 4

AACSB: Analytical thinking

EA

15) Fixed costs remain constant at \$450,000 per month. During high-output months variable costs are \$300,000, and during low-output months variable costs are \$125,000. What are the respective high and low indirect-cost rates if budgeted professional labor-hours are 24,000 for high-output months and 5,000 for low-output months?

- A) \$31.25 per hour; \$115.00 per hour
- B) \$31.25 per hour; \$31.25 per hour
- C) \$18.75 per hour; \$25.00 per hour
- D) \$12.50 per hour; \$115.00 per hour

Answer: A

Explanation:

$$\$450,000 / 24,000 = \$18.75 \quad \$450,000 / 5,000 = \$90.00$$

$$\$300,000 / 24,000 = \underline{12.50}$$

$$\$125,000 / 5,000 = \underline{25.00}$$

$$\text{High Month} = \underline{\underline{\$31.25}}$$

$$\text{Low Month} = \underline{\underline{\$115.00}}$$

Diff: 2

Objective: 4

AACSB: Application of knowledge

16) Managers and accountants collect most of the cost information that goes into their systems through _____.

- A) an information data bank
- B) computer programs
- C) source documents
- D) time surveys

Answer: C

Diff: 1

Objective: 4

AACSB: Analytical thinking

17) For 2018, Rest-Well Bedding uses machine-hours as the only overhead cost-allocation base. The direct cost rate is \$6.00 per unit. The selling price of the product is \$21.00. The estimated manufacturing overhead costs are \$275,000 and estimated 40,000 machine hours. The actual manufacturing overhead costs are \$350,000 and actual machine hours are 50,000.

Using job costing, the 2018 actual indirect-cost rate is _____.

- A) \$7.00 per machine-hour
- B) \$5.50 per machine-hour
- C) \$8.75 per machine-hour
- D) \$8.50 per machine-hour

Answer: A

$$\text{Explanation: } \$350,000 / 50,000 \text{ mh} = \$7.00$$

Diff: 2

Objective: 4

AACSB: Application of knowledge

EA

18) For 2018, Winters Manufacturing uses machine-hours as the only overhead cost-allocation base. The direct cost rate is \$2.00 per unit. The selling price of the product is \$27.00. The estimated manufacturing overhead costs are \$220,000 and estimated 20,000 machine hours. The actual manufacturing overhead costs are \$225,000 and actual machine hours are 25,000. What is the profit margin earned if each unit requires two machine-hours?

- A) 45.00%
- B) 25.93%
- C) 50.00%
- D) 90.00%

Answer: B

Explanation: $\$225,000/25,000 = \9.00

$\$27.00 - \$2.00 - (\$9.00 \times 2) = \7 ; $\$7 / \$20 = 25.93\%$ *already there/no change to this

Diff: 2

Objective: 4

AACSB: Application of knowledge

19) Better Products Company manufactures insulation and applies manufacturing overhead costs to production at a budgeted indirect-cost rate of \$18 per direct labor-hour. The following data are obtained from the accounting records for October 2018:

Direct materials	\$370,000
Direct labor (3,300 hours @ \$17/hour)	56,100
Indirect labor	22,000
Plant facility rent	53,000
Depreciation on plant machinery and equipment	41,000
Sales commissions	17,000
Administrative expenses	29,000

The actual amount of manufacturing overhead costs incurred in October 2018 totals _____.

- A) \$277,500
- B) \$116,000
- C) \$162,000
- D) \$123,000

Answer: B

Explanation:

$\$22,000 + \$53,000 + \$41,000 = \$116,000$

Diff: 2

Objective: 4

AACSB: Application of knowledge

EA

20) Smith and Jones CPA firm employs 12 accountants and 10 paraprofessionals. Direct and indirect costs are applied on a professional labor-hour basis that includes both attorney and paraprofessional hours. Following is information for 2018:

	<u>Budget</u>	<u>Actual</u>
Indirect costs	\$290,000	\$310,000
Annual salary of each attorney	\$90,000	\$105,000
Annual salary of each paraprofessional	\$32,000	\$33,000
Total professional labor-hours	20,000 dlh	25,000 dlh

What are the actual direct-cost rate and the actual indirect-cost rate, respectively, per professional labor-hour?

- A) \$63.60; \$11.60
- B) \$70.00; \$14.50
- C) \$79.50; \$12.40
- D) \$63.60; \$12.40

Answer: D

Explanation: $[(\$105,000 \times 12) + (\$33,000 \times 10)] / 25,000 = \63.60 actual direct rate
 $\$310,000 / 25,000 = \12.40 actual indirect rate

Diff: 2

Objective: 4

AACSB: Application of knowledge

21) Francis and Hartley Law Office employs 12 full-time attorneys and 10 paraprofessionals. Direct and indirect costs are applied on a professional labor-hour basis that includes both attorney and paraprofessional hours. Following is information for 2018:

	<u>Budget</u>	<u>Actual</u>
Indirect costs	\$270,000	\$300,000
Annual salary of each attorney	\$100,000	\$110,000
Annual salary of each paraprofessional	\$29,000	\$30,000
Total professional labor-hours	50,000 dlh	60,000 dlh

How much should the client be billed in an actual costing system if 220 professional labor-hours are used?

- A) \$5,940
- B) \$7,744
- C) \$8,228
- D) \$7,040

Answer: D

Explanation: $[(\$110,000 \times 12) + (\$30,000 \times 10)] / 60,000 \times 220 = \$5,940$
 $+ \$300,000 / 60,000 \times 220 = \$1,100$
 $= \underline{\underline{7,040}}$

Diff: 3

Objective: 4

AACSB: Application of knowledge

EA

22) If indirect-cost rates were based on actual short-term usage, periods of lower demand would result in lower costs per unit.

Answer: FALSE

Explanation: If indirect-cost rates were based on actual short-term usage, periods of lower demand would result in higher costs per unit.

Diff: 2

Objective: 4

AACSB: Analytical thinking

23) In job costing, only direct costs are used to determine the cost of a job.

Answer: FALSE

Explanation: Both direct and indirect costs are used to determine the cost of a job.

Diff: 1

Objective: 4

AACSB: Analytical thinking

24) Indirect manufacturing costs should be allocated equally to each job.

Answer: FALSE

Explanation: Not equally to each job, but according to the use of indirect resources by individual jobs.

Diff: 2

Objective: 4

AACSB: Analytical thinking

25) Each cost pool will have one cost-allocation base.

Answer: TRUE

Diff: 2

Objective: 4

AACSB: Analytical thinking

EA

26) Rally Company manufactures garage storage systems for homeowners. It uses a normal costing system with two direct cost categories - direct materials and direct labor - an one indirect-cost pool, manufacturing overhead costs.

For 2018:

Budgeted manufacturing overhead costs \$1,000,000

Budgeted manufacturing labor-hours 20,000 hours

Actual manufacturing overhead costs \$1,100,000

Actual direct manufacturing labor-hours 22,000

Actual direct material costs \$10,000

Actual direct manufacturing labor hours 200

Actual direct manufacturing labor rate \$20 per hour

Required:

Calculate the total manufacturing costs using normal costing.

Answer: \$24,000 = \$10,000 + (200 x \$20) + (200 x \$50)

Diff: 2

Objective: 4

AACSB: Application of knowledge

27) Companies often use multiple cost-allocation bases to allocate indirect costs because different indirect costs have different cost drivers.

Answer: TRUE

Diff: 1

Objective: 4

AACSB: Analytical thinking

28) A materials-requisition record is an example of a source document.

Answer: TRUE

Diff: 2

Objective: 4

AACSB: Application of knowledge

29) All costs other than direct materials and direct manufacturing labor are classified as indirect costs.

Answer: TRUE

Diff: 1

Objective: 4

AACSB: Analytical thinking

30) To smooth fluctuating levels of output, separate indirect-cost rates should be calculated for each month.

Answer: FALSE

Explanation: To smooth seasonal costs and fluctuating levels of output, indirect-cost rates should be calculated on an annual basis.

Diff: 2

Objective: 4

AACSB: Analytical thinking

31) Grounds-maintenance costs incurred during the summer months will distort indirect-cost rates that are computed monthly.

Answer: TRUE

Diff: 2

Objective: 4

AACSB: Analytical thinking

32) One reason for using longer time periods to calculate indirect-cost rates is seasonal cost fluctuations.

Answer: TRUE

Diff: 2

Objective: 4

AACSB: Analytical thinking

33) What are the direct costs of a job and in which source documents are they recorded?

Answer: The direct costs of a job are direct materials and direct labor. Direct materials are recorded in a basic source document called a materials-requisition record, which contains information about the cost of direct materials used on a specific job and in a specific department. Direct manufacturing labor is recorded in a labor-time sheet, which contains information about the amount of labor time used for a specific job in a specific department.

Diff: 2

Objective: 4

AACSB: Analytical thinking

34) What is the difference between an actual cost system and a normal cost system?

Answer: An actual cost system is one that traces direct costs to a cost object by using the actual direct-cost rates times the actual quantities of direct-cost inputs, and allocates indirect costs based on the actual indirect cost rates times the actual quantities of the cost-allocation bases. A normal cost system is one that traces direct costs to a cost object by using the actual direct-cost rates times the actual quantities of direct-cost inputs, and allocates indirect costs based on the budgeted indirect cost rates times the actual quantities of the cost-allocation bases. Both systems trace direct costs to jobs the same way. An actual cost system traces indirect costs to jobs using actual indirect cost rates, but a normal cost system uses budgeted indirect cost rates to trace indirect costs to jobs.

Diff: 2

Objective: 4

AACSB: Analytical thinking

EA

35) For each item below indicate the source documents that would most likely authorize the journal entry in a job-costing system.

Required:

- a. direct materials purchased
- b. direct materials used
- c. direct manufacturing labor
- d. indirect manufacturing labor
- e. finished goods control
- f. cost of goods sold

Answer:

- a. purchase invoice
- b. Materials requisition record
- c. labor time card/record
- d. labor time card
- e. job-cost record
- f. sales invoice

Diff: 2

Objective: 4

AACSB: Analytical thinking

36) Normal costing is a method of job costing that allocates an indirect cost based on the actual indirect-cost rate times the actual quantity of the cost-allocation base.

Answer: FALSE

Explanation: Actual costing is a method of job costing that allocates an indirect cost based on the actual indirect-cost rate times the actual quantity of the cost-allocation base.

Diff: 2

Objective: 4

AACSB: Analytical thinking

4.5 Objective 4.5

1) The budgeted indirect-cost rate is calculated _____.

- A) at the beginning of the year
- B) during the year
- C) at the end of each quarter
- D) at the end of the year

Answer: A

Diff: 1

Objective: 5

AACSB: Analytical thinking

EA

2) The difference between actual costing and normal costing is _____.

- A) normal costing uses actual quantities of direct-costs
- B) actual costing uses actual quantities of direct-costs
- C) normal costing uses budgeted indirect-costs
- D) actual costing uses actual quantities of cost-allocation bases

Answer: C

Diff: 1

Objective: 5

AACSB: Analytical thinking

3) Which of the following statements about normal costing is true?

- A) Direct costs and indirect costs are traced using an actual rate.
- B) Direct costs and indirect costs are traced using budgeted rates.
- C) Direct costs are traced using a budgeted rate, and indirect costs are allocated using an actual rate.
- D) Direct costs are traced using an actual rate, and indirect costs are allocated using a budgeted rate.

Answer: D

Diff: 2

Objective: 5

AACSB: Analytical thinking

4) When using a normal costing system, manufacturing overhead is allocated using the _____ manufacturing overhead rate and the _____ quantity of the allocation base.

- A) budgeted; actual
- B) budgeted; budgeted
- C) actual; budgeted
- D) actual; actual

Answer: A

Diff: 1

Objective: 5

AACSB: Analytical thinking

5) Which of the following statements about actual costing is true?

- A) Manufacturing costs of a job are available earlier under actual costing.
- B) Corrective actions can be implemented sooner under actual costing.
- C) Actual costing uses budgeted indirect-cost rates calculated annually.
- D) Actual costing uses actual indirect-cost rates calculated annually.

Answer: D

Diff: 1

Objective: 5

AACSB: Analytical thinking

EA

6) For 2018, Franklin Manufacturing uses machine-hours as the only overhead cost-allocation base. The estimated manufacturing overhead costs are \$300,000 and estimated machine hours are 50,000. The actual manufacturing overhead costs are \$420,000 and actual machine hours are 60,000.

Using job costing, the 2018 budgeted manufacturing overhead rate is _____. (Round the final answer to the nearest cent.)

- A) \$8.40 per machine-hour
- B) \$5.00 per machine-hour
- C) \$7.00 per machine-hour
- D) \$6.00 per machine-hour

Answer: D

Explanation: $\$300,000 / 50,000 \text{ mh} = \$6.00 \text{ per machine-hour}$

Diff: 2

Objective: 5

AACSB: Application of knowledge

7) For 2018, Franklin Manufacturing uses machine-hours as the only overhead cost-allocation base. The estimated manufacturing overhead costs are \$340,000 and estimated machine hours are 40,000. The actual manufacturing overhead costs are \$450,000 and actual machine hours are 50,000. What is the difference between the budgeted and the actual manufacturing overhead using job costing? (Round interim and the final answer to the nearest cent.)

- A) \$2.75
- B) \$2.20
- C) \$0.50
- D) \$2.25

Answer: C

Explanation: Budgeted manufacturing overhead rate: $\$340,000 / 40,000 \text{ mh} = \$8.50 \text{ per machine-hour}$

Actual manufacturing overhead is $\$450,000 / 50,000 = \$9.00 \text{ per machine hour}$.

Difference is $\$9.00 - \$8.50 = \$0.50$

Diff: 2

Objective: 5

AACSB: Application of knowledge

EA

8) Sky High Company has two departments, X and Y. The following estimates are for the coming year:

	<u>X</u>	<u>Y</u>
Direct manufacturing labor-hours	20,000	30,000
Machine-hours	30,000	20,000
Manufacturing overhead	\$300,000	\$330,000

A single indirect-cost rate based on direct manufacturing labor-hours for the entire plant is _____.

- A) \$25.00 per direct labor-hour
- B) \$12.60 per direct labor-hour
- C) \$27.50 per direct labor-hour
- D) \$16.50 per direct labor-hour

Answer: B

Explanation: $\$630,000 / 50,000 \text{ dlh} = \12.60

Diff: 2

Objective: 5

AACSB: Application of knowledge

9) Sky High Company has two departments, X and Y. The following estimates are for the coming year:

	<u>X</u>	<u>Y</u>
Direct manufacturing labor-hours	20,000	30,000
Machine-hours	30,000	20,000
Manufacturing overhead	\$300,000	\$330,000

The budgeted indirect-cost driver rate for Y based on the number of machine-hours is in excess of X by _____. (Round interim and the final answer to the nearest cent.)

- A) \$6.50 per machine-hour
- B) \$21.50 per machine-hour
- C) \$1.50 per machine-hour
- D) \$16.50 per machine-hour

Answer: A

Explanation: $X = \$300,000 / 30,000 \text{ mh} = \10.00

$Y = \$330,000 / 20,000 \text{ mh} = \16.50 ; Excess = $\$16.50 - \$10.00 = \$6.50$

Diff: 2

Objective: 5

AACSB: Application of knowledge

EA

10) Manton Manufacturing applies manufacturing overhead costs to products at a budgeted indirect-cost rate of \$60 per direct manufacturing labor-hour. A retail outlet has requested a bid on a special order of the Toy Bear product. Estimates for this order include: Direct materials of \$79,000; 680 direct manufacturing labor-hours at \$25 per hour; and a 25% markup rate on total manufacturing costs. Manufacturing overhead cost estimates for this special-order total _____.

- A) \$60,550
- B) \$57,800
- C) \$40,800
- D) \$59,250

Answer: C

Explanation: $\$60 \times 680 \text{ dlh} = \$40,800$

Diff: 2

Objective: 5

AACSB: Application of knowledge

11) Lancelot Manufacturing is a small textile manufacturer using machine-hours as the single indirect-cost rate to allocate manufacturing overhead costs to the various jobs contracted during the year. The following estimates are provided for the coming year for the company and for the Case High School band jacket job.

	<u>Company</u>	<u>Case High School Job</u>
Direct materials	\$60,000	\$2,400
Direct labor	\$15,000	\$600
Manufacturing overhead costs	\$50,000	
Machine-hours	100,000 mh	1,000 mh

For Lancelot Manufacturing, what is the annual manufacturing overhead cost-allocation rate?

- A) \$0.75
- B) \$1.25
- C) \$0.50
- D) \$50.00

Answer: C

Explanation: $\$50,000 / 100,000 \text{ mh} = \0.50 per mh

Diff: 2

Objective: 5

AACSB: Application of knowledge

EA

12) Lancelot Manufacturing is a small textile manufacturer using machine-hours as the single indirect-cost rate to allocate manufacturing overhead costs to the various jobs contracted during the year. The following estimates are provided for the coming year for the company and for the Case High School band jacket job.

	<u>Company</u>	<u>Case High School Job</u>
Direct materials	\$60,000	\$2,400
Direct labor	\$15,000	\$600
Manufacturing overhead costs	\$50,000	
Machine-hours	100,000 mh	1,000 mh

What amount of manufacturing overhead costs will be allocated to this job?

- A) \$500
- B) \$1,250
- C) \$450
- D) \$650

Answer: A

Explanation: $1,000 \text{ mh} \times \$50,000 / 100,000 \text{ mh} = \500

Diff: 2

Objective: 5

AACSB: Application of knowledge

13) Lancelot Manufacturing is a small textile manufacturer using machine-hours as the single indirect-cost rate to allocate manufacturing overhead costs to the various jobs contracted during the year. The following estimates are provided for the coming year for the company and for the Case High School band jacket job.

	<u>Company</u>	<u>Case High School Job</u>
Direct materials	\$40,000	\$2,000
Direct labor	\$10,000	\$400
Manufacturing overhead costs	\$45,000	
Machine-hours	100,000 mh	900 mh

What are the total manufacturing costs of this job?

- A) \$2,400
- B) \$2,805
- C) \$2,895
- D) \$1,995

Answer: B

Explanation: $\text{DM } \$2,000 + \text{DML } \$400 + \text{MOH } \$405 = \$2,805$

Diff: 3

Objective: 5

AACSB: Application of knowledge

EA

14) Lancelot Manufacturing is a small textile manufacturer using machine-hours as the single indirect-cost rate to allocate manufacturing overhead costs to the various jobs contracted during the year. The following estimates are provided for the coming year for the company and for the Case High School band jacket job.

	<u>Company</u>	<u>Case High School Job</u>
Direct materials	\$40,000	\$2,000
Direct labor	\$10,000	\$400
Manufacturing overhead costs	\$45,000	
Machine-hours	100,000 mh	900 mh

What is the bid price for the Case High School job if the company uses a 40% markup of total manufacturing costs?

- A) \$3,360
- B) \$1,122
- C) \$960
- D) \$3,927

Answer: D

Explanation: $(DM \$2,000 + DML \$400 + MOH \$405) \times (1 + 40/100) = \$3,927$

Diff: 3

Objective: 5

AACSB: Application of knowledge

EA

15) Apple Valley Corporation uses a job cost system and has two production departments, A and B. Budgeted manufacturing costs for the year are:

	<u>Department A</u>	<u>Department B</u>
Direct materials	\$700,000	\$100,000
Direct manufacturing labor	\$200,000	\$800,000
Manufacturing overhead	\$500,000	\$400,000

The actual material and labor costs charged to Job #432 were as follows:

	<u>Total</u>
Direct materials:	\$25,000
Direct labor:	
Department A	\$8,000
Department B	<u>\$12,000</u>
	\$20,000

Apple Valley applies manufacturing overhead costs to jobs on the basis of direct manufacturing labor cost using departmental rates determined at the beginning of the year.

For Department A, the manufacturing overhead allocation rate is _____.

- A) 40.0%
- B) 50.0%
- C) 250.0%
- D) 90.0%

Answer: C

Explanation: $\$500,000 / \$200,000 = 250.0\%$

Diff: 2

Objective: 5

AACSB: Application of knowledge

EA

16) Apple Valley Corporation uses a job cost system and has two production departments, A and B. Budgeted manufacturing costs for the year are:

	<u>Department A</u>	<u>Department B</u>
Direct materials	\$700,000	\$100,000
Direct manufacturing labor	\$200,000	\$800,000
Manufacturing overhead	\$500,000	\$400,000

The actual material and labor costs charged to Job #432 were as follows:

	<u>Total</u>
Direct materials:	\$25,000
Direct labor:	
Department A	\$8,000
Department B	<u>\$12,000</u>
	\$20,000

Apple Valley applies manufacturing overhead costs to jobs on the basis of direct manufacturing labor cost using departmental rates determined at the beginning of the year.

For Department B, the manufacturing overhead allocation rate is _____.

- A) 50.0%
- B) 90.0 %
- C) 200.0%
- D) 250.0%

Answer: A

Explanation: $\$400,000 / \$800,000 = 50.0\%$

Diff: 2

Objective: 5

AACSB: Application of knowledge

EA

17) Apple Valley Corporation uses a job cost system and has two production departments, A and B. Budgeted manufacturing costs for the year are:

	<u>Department A</u>	<u>Department B</u>
Direct materials	\$600,000	\$100,000
Direct manufacturing labor	\$100,000	\$600,000
Manufacturing overhead	\$400,000	\$300,000

The actual material and labor costs charged to Job #432 were as follows:

	<u>Total</u>
Direct materials:	\$28,000
Direct labor:	
Department A	\$18,000
Department B	<u>\$12,000</u>
	\$30,000

Apple Valley applies manufacturing overhead costs to jobs on the basis of direct manufacturing labor cost using departmental rates determined at the beginning of the year.

Manufacturing overhead costs allocated to Job #432 total _____.

- A) \$78,000
- B) \$12,000
- C) \$36,000
- D) \$48,000

Answer: A

Explanation: $[(\$18,000 \times \$400,000 / \$100,000)] + [\$12,000 \times \$300,000 / \$600,000] = \$78,000$

Diff: 3

Objective: 5

AACSB: Application of knowledge

EA

18) Elite Stationary Inc. employs 20 full-time employees and 10 trainees. Direct and indirect costs are applied on a professional labor-hour basis that includes both employee and trainee hours. Following is information for 2018:

	<u>Budget</u>	<u>Actual</u>
Indirect costs	\$300,000	\$400,000
Annual salary of each employee	\$200,000	\$210,000
Annual salary of each trainee	\$35,000	\$40,000
Total professional labor-hours	20,000 dlh	40,000 dlh

What are the budgeted direct-cost rate and the budgeted indirect-cost rate, respectively, per professional labor-hour? (Round the final answers to the nearest cent.)

- A) \$200.00; \$16.75
- B) \$217.50; \$15.00
- C) \$115.00; \$10.00
- D) \$135.00; \$10.00

Answer: B

Explanation: $[(\$200,000 \times 20) + (\$35,000 \times 10)] / 20,000 = \217.50 budgeted direct rate
 $\$300,000 / 20,000 = \15.00 budgeted indirect rate

Diff: 2

Objective: 5

AACSB: Application of knowledge

19) Elite Stationary employs 20 full-time employees and 10 trainees. Direct and indirect costs are applied on a professional labor-hour basis that includes both employee and trainee hours. Following is information for 2018:

	<u>Budget</u>	<u>Actual</u>
Indirect costs	\$300,000	\$400,000
Annual salary of each employee	\$200,000	\$210,000
Annual salary of each trainee	\$35,000	\$40,000
Total professional labor-hours	20,000 dlh	40,000 dlh

How much should a client be billed in a normal costing system when 1,000 professional labor-hours are used?

- A) \$215,000
- B) \$125,000
- C) \$130,000
- D) \$145,000

Answer: C

Explanation: $[(\$210,000 \times 20) + (\$40,000 \times 10)] / 40,000 \times 1,000 = \$115,000$
 $+ \$300,000 / 20,000 \times 1,000 = 15,000$
\$130,000

Diff: 3

Objective: 5

AACSB: Application of knowledge

EA

20) Elite Stationary employs 20 full-time employees and 10 trainees. Direct and indirect costs are applied on a professional labor-hour basis that includes both employee and trainee hours. Following is information for 2018:

	<u>Budget</u>	<u>Actual</u>
Indirect costs	\$250,000	\$400,000
Annual salary of each employee	\$200,000	\$250,000
Annual salary of each trainee	\$40,000	\$45,000
Total professional labor-hours	40,000 dlh	50,000 dlh

When a normal costing system is used, clients using proportionately more full-time employees than trainees will _____.

- A) be over billed for actual resources used
- B) be under billed for actual resources used
- C) be billed accurately for actual resources used
- D) result in an under allocation of direct costs

Answer: B

Diff: 3

Objective: 5

AACSB: Application of knowledge

21) Actual costing helps managers get information earlier and take corrective measures to improve labor efficiency.

Answer: FALSE

Explanation: Normal costing helps managers get information earlier and take corrective measures to improve labor efficiency.

Diff: 2

Objective: 5

AACSB: Analytical thinking

22) The budgeted indirect cost rate is actual indirect costs divided by budgeted quantity of the cost allocation base.

Answer: FALSE

Explanation: The budgeted indirect cost rate is budgeted indirect costs divided by budgeted quantity of the cost allocation base.

Diff: 2

Objective: 5

AACSB: Analytical thinking

23) Direct costs are traced the same way for actual costing and normal costing.

Answer: TRUE

Diff: 1

Objective: 5

AACSB: Analytical thinking

EA

24) Normal costing assigns indirect costs based on an actual indirect-cost rate.

Answer: FALSE

Explanation: Normal costing assigns indirect costs based on a budgeted rate.

Diff: 1

Objective: 5

AACSB: Analytical thinking

25) A budgeted indirect-cost rate is computed for each cost pool using budgeted indirect costs and the budgeted quantity of the cost-allocation base.

Answer: TRUE

Diff: 1

Objective: 5

AACSB: Analytical thinking

26) For normal costing, even though the indirect-cost rate is based on actual, indirect costs are allocated to products based on the normal capacity of the cost-allocation base.

Answer: FALSE

Explanation: For normal costing, even though the indirect-cost rate is based on estimates, indirect costs are allocated to products based on the actual quantity of the cost-allocation base.

Diff: 2

Objective: 5

AACSB: Analytical thinking

27) Chief Manufacturing is a small textile manufacturer using machine-hours as the single indirect-cost rate to allocate manufacturing overhead costs to the various jobs contracted during the year. The following estimates are provided for the coming year for the company and for the Somerset High School Science Olympiad Jacket job.

	<u>Company</u>	<u>Somerset High School Job</u>
Direct materials	\$25,000	\$600
Direct manufacturing labor	\$5,000	\$200
Manufacturing overhead costs	\$20,000	
Machine-hours	40,000 mh	800 mh

Required:

- For Chief Manufacturing, determine the annual manufacturing overhead cost-allocation rate.
- Determine the amount of manufacturing overhead costs allocated to the Somerset High School job.
- Determine the estimated total manufacturing costs for the Somerset High School job.

Answer:

- Manufacturing overhead cost-allocation rate = $\$0.50$ per mh
 $= \$20,000/40,000$ mh
- $\$400$ estimated manufacturing overhead costs = 800 mh \times $\$0.50$ per mh
- | | |
|-------------------------------------|----------------|
| Direct materials | \$500 |
| Direct manufacturing labor | \$200 |
| Manufacturing overhead costs | <u>\$400</u> |
| Estimated total manufacturing costs | <u>\$1,100</u> |

Diff: 2

Objective: 4, 5

AACSB: Analytical skills

28) Hill Manufacturing uses departmental cost driver rates to apply manufacturing overhead costs to products. Manufacturing overhead costs are applied on the basis of machine-hours in the Machining Department and on the basis of direct labor-hours in the Assembly Department. At the beginning of 2018, the following estimates were provided for the coming year:

	<u>Machining</u>	<u>Assembly</u>
Direct labor-hours	10,000 dlh	90,000 dlh
Machine-hours	100,000 mh	5,000 mh
Direct labor cost	\$ 80,000	\$720,000
Manufacturing overhead costs	\$250,000	\$360,000

The accounting records of the company show the following data for Job #846:

	<u>Machining</u>	<u>Assembly</u>
Direct labor-hours	50 dlh	120 dlh
Machine-hours	170 mh	10 mh
Direct material cost	\$2,700	\$1,600
Direct labor cost	\$ 400	\$ 900

Required:

- Compute the manufacturing overhead allocation rate for each department.
- Compute the total cost of Job #846.
- Provide possible reasons why Hill Manufacturing uses two different cost allocation rates.

Answer:

- Machining Department cost-allocation rate: $\$2.50 / \text{mh} = \$250,000/100,000 \text{ mh}$
 Assembly Department cost-allocation rate: $\$4.00 / \text{dlh} = \$360,000/90,000 \text{ dlh}$
- Total cost of Job #846 is $\$6,505 = \text{Direct materials } \$4,300 + \text{Direct labor } \$1,300 + \text{Manufacturing overhead costs } \$905 (\text{Machining } \$425 + \text{Assembly } \$480)$.
- Ideally, the cost-allocation base should reflect the factors that cause manufacturing overhead costs to increase. Apparently, Hill regards the use of machines as the principal cause of manufacturing overhead costs (such as depreciation and repairs) in the Machining Department. In contrast, Hill regards direct labor-hours as the principal cause of manufacturing overhead costs (such as indirect labor) in the Assembly Department.

Diff: 2

Objective: 4, 5

AACSB: Analytical skills

4.6 Objective 4.6

1) In a normal costing system, the Manufacturing Overhead Control account _____.

- A) is increased by allocated manufacturing overhead
- B) is credited with amounts transferred to Work-in-Process
- C) is decreased by allocated manufacturing overhead
- D) is debited with actual overhead costs

Answer: D

Diff: 2

Objective: 6

AACSB: Analytical thinking

2) The Materials Control account is increased when _____.

- A) direct materials are purchased
- B) indirect materials are sold
- C) materials are requisitioned for production
- D) materials are converted to finished goods

Answer: A

Diff: 1

Objective: 6

AACSB: Analytical thinking

3) Which of the following is true of the Work-in-Process Control account?

- A) It tracks all direct material purchases.
- B) Its balance is the sum of amounts from all in-process individual job-cost records.
- C) It is an expense account.
- D) It tracks overhead costs in-process from beginning through completion.

Answer: B

Diff: 2

Objective: 6

AACSB: Analytical thinking

4) Which of the following general ledger accounts will have a subsidiary ledger account?

- A) Cost of Goods Sold account
- B) Work-in-Process Control account
- C) Joe's Accounts Receivable subsidiary account
- D) Operating Expenses account

Answer: B

Diff: 1

Objective: 6

AACSB: Analytical thinking

EA

5) Which of the following increases (are debited to) the Work-in-Process Control account?

- A) actual plant insurance costs
- B) customer services costs
- C) marketing expenses
- D) direct manufacturing labor costs

Answer: D

Diff: 2

Objective: 6

AACSB: Analytical thinking

6) When \$10,000 direct materials are requisitioned, which of the following would be the correct journal entry?

- A) Manufacturing Overhead Control \$10,000
 Materials Control \$10,000
- B) Work-in-Process Control \$10,000
 Materials Control \$10,000
- C) Materials Control \$10,000
 Work-in-Process Control \$10,000
- D) Accounts Payable Control \$10,000
 Materials Control \$10,000

Answer: B

Diff: 2

Objective: 6

AACSB: Application of knowledge

7) Payment of the factory rent would require debits and credits to which accounts?

- A) Debit: Work-in-Process Control account
Credit: Cash
- B) Debit: Manufacturing Overhead Control account
Credit: Cash
- C) Debit: Cost of Goods Sold account
Credit: Prepaid Rent
- D) Debit: Factory Depreciation account
Credit: Accumulated Depreciation Control

Answer: B

Diff: 2

Objective: 6

AACSB: Application of knowledge

8) Which of the following is true of plant utility costs?

- A) It increases the Materials Control account.
- B) It increases the Manufacturing Overhead Control account.
- C) It increases the Work-in-Process Control account.
- D) It is a direct cost.

Answer: B

Diff: 1

Objective: 6

AACSB: Analytical thinking

EA

9) Actual (rather than allocated) manufacturing overhead costs are first recorded in the _____.

- A) Work-in-Process Control account
- B) Finished Goods Control account
- C) Manufacturing Overhead Control account
- D) Cost of Goods Sold account

Answer: C

Diff: 2

Objective: 6

AACSB: Analytical thinking

10) The ending balance in the Work-in-Process Control account represents the costs of all jobs that _____.

- A) have not been completed
- B) have been completed but not sold
- C) have been completed and sold to customers
- D) are reported on the income statement

Answer: A

Diff: 1

Objective: 6

AACSB: Analytical thinking

11) For externally reported inventory costs, the Work-in-Process Control account is increased (debited) by _____.

- A) marketing costs
- B) allocated plant utility costs
- C) the purchase costs of direct and indirect materials
- D) customer-service costs

Answer: B

Diff: 2

Objective: 6

AACSB: Analytical thinking

12) Which account is debited if materials costing \$100,000 are sold?

- A) Revenues account
- B) Work-in-Process Control account
- C) Materials Control account
- D) Cost of Goods Sold account

Answer: D

Diff: 2

Objective: 6

AACSB: Analytical thinking

EA

13) Which account is credited if direct materials of \$28,000 and indirect materials of \$7,000 are sent to the manufacturing plant floor?

- A) Manufacturing Overhead Control for \$35,000
- B) Work-in-Process Control for \$35,000
- C) Accounts Payable Control for \$21,000
- D) Materials Control for \$35,000

Answer: D

Diff: 2

Objective: 6

AACSB: Analytical thinking

14) Which of the following items is debited to the Work-in-Process account?

- A) allocated manufacturing overhead
- B) completed goods transferred out of the plant
- C) accumulated depreciation on fixed assets
- D) accounts receivable

Answer: A

Diff: 2

Objective: 6

AACSB: Analytical thinking

15) Which account would be credited if the following labor wages were incurred in a furniture manufacturing company?

Assembly workers	\$20,000
Janitors	\$11,000

- A) Work-in-Process Control, 31,000
- B) Manufacturing Overhead Control, 31,000
- C) Wages Payable Control, 31,000
- D) Accounts Payable Control, 31,000

Answer: C

Diff: 2

Objective: 6

AACSB: Analytical thinking

EA

16) Manufacturing overhead costs incurred for the month are:

Utilities	\$45,000
Depreciation on equipment	\$27,000
Repairs	\$17,000

Which account is debited assuming utilities and repairs were on account?

- A) Manufacturing Overhead Control, 89,000
- B) Utilities Overhead Control, 45,000
- C) Accumulated Depreciation Control, 27,000
- D) Accounts Payable Control, 62,000

Answer: A

Diff: 2

Objective: 6

AACSB: Analytical thinking

17) Which of the following statements regarding manufacturing overhead allocation is true?

- A) It includes all manufacturing costs that cannot be directly traced to a product or service.
- B) The costs can be grouped only as a single indirect-cost pool.
- C) Total costs are unknown at the end of the accounting period.
- D) Allocated amounts are debited to Manufacturing Overhead Control.

Answer: A

Diff: 2

Objective: 6

AACSB: Analytical thinking

18) When a job is complete _____.

- A) actual indirect manufacturing labor is excluded from the total cost of the job
- B) Finished Goods Control is debited
- C) the cost of the job is transferred to Manufacturing Overhead Control
- D) it is reduced from Manufacturing Overhead Control account

Answer: B

Diff: 2

Objective: 6

AACSB: Analytical thinking

EA

22) Candle Corp. applies manufacturing overhead costs to products at a budgeted indirect-cost rate of \$80 per direct manufacturing labor-hour. A retail outlet has requested a bid on a special order of a necklace. Estimates for this order include: Direct materials of \$44,000; 300 direct manufacturing labor-hours at \$25 per hour; and a 20% markup rate on total manufacturing costs.

The bid price for this special order is _____.

- A) \$60,500
- B) \$90,600
- C) \$81,600
- D) \$61,800

Answer: B

Explanation: $(DU \$44,000 + DML (300 \times \$25) + MOH 24,000) \times 120\% = \$90,600$

Diff: 2

Objective: 6

AACSB: Application of knowledge

23) Franklin Inc. manufactures pipes and applies manufacturing overhead costs to production at a budgeted indirect-cost rate of \$15 per direct labor-hour. The following data are obtained from the accounting records for June 2018:

Direct materials	\$100,000
Direct labor (4,000 hours @ \$10/hour)	40,000
Indirect labor	10,000
Plant facility rent	26,000
Depreciation on plant machinery and equipment	24,500
Sales commissions	23,000
Administrative expenses	31,000

The amount of manufacturing overhead allocated to all jobs during June 2018 totals _____.

- A) \$91,500
- B) \$60,000
- C) \$76,000
- D) \$60,500

Answer: B

Explanation: $4,000 \times \$15 \text{ per dlh} = \$60,000$

Diff: 2

Objective: 6

AACSB: Application of knowledge

EA

24) Franklin Inc. manufactures pipes and applies manufacturing overhead costs to production at a budgeted indirect-cost rate of \$18 per direct labor-hour. The following data are obtained from the accounting records for June 2018:

Direct materials	\$170,000
Direct labor (4,600 hours @ \$10/hour)	46,000
Indirect labor	17,000
Plant facility rent	34,000
Depreciation on plant machinery and equipment	24,500
Sales commissions	33,000
Administrative expenses	28,000

For June 2018, manufacturing overhead is _____.

- A) overallocated by \$7,300
- B) underallocated by \$20,700
- C) overallocated by \$20,700
- D) underallocated by \$7,300

Answer: A

Explanation: Overallocated by \$7,300; Allocated \$82,800 ($4,600 \times \$18$ per dlh) when actual overhead is \$75,500 ($17,000 + 34,000 + 24,500$).

Diff: 2

Objective: 6

AACSB: Application of knowledge

EA

25) Bauer Manufacturing uses departmental cost driver rates to allocate manufacturing overhead costs to products. Manufacturing overhead costs are allocated on the basis of machine-hours in the Machining Department and on the basis of direct labor-hours in the Assembly Department. At the beginning of 2018, the following estimates were provided for the coming year:

	<u>Machining</u>	<u>Assembly</u>
Direct labor-hours	60,000	70,000
Machine-hours	20,000	30,000
Direct labor cost	\$450,000	\$750,000
Manufacturing overhead costs	\$300,000	\$210,000

The accounting records of the company show the following data for Job #316:

	<u>Machining</u>	<u>Assembly</u>
Direct labor-hours	120	75
Machine-hours	60	5
Direct material cost	\$350	\$100
Direct labor cost	\$350	\$450

For Bauer Manufacturing, what is the annual manufacturing overhead cost-allocation rate for the Machining Department?

- A) \$3.00
- B) \$6.00
- C) \$5.00
- D) \$15.00

Answer: D

Explanation: $\$300,000 / 20,000 \text{ mh} = \15.00 per mh

Diff: 2

Objective: 6

AACSB: Application of knowledge

26) Bauer Manufacturing uses departmental cost driver rates to allocate manufacturing overhead costs to products. Manufacturing overhead costs are allocated on the basis of machine-hours in the Machining Department and on the basis of direct labor-hours in the Assembly Department. At the beginning of 2018, the following estimates were provided for the coming year:

	<u>Machining</u>	<u>Assembly</u>
Direct labor-hours	60,000	25,000
Machine-hours	30,000	40,000
Direct labor cost	\$550,000	\$850,000
Manufacturing overhead costs	\$420,000	\$240,000

The accounting records of the company show the following data for Job #316:

	<u>Machining</u>	<u>Assembly</u>
Direct labor-hours	120	80
Machine-hours	70	5
Direct material cost	\$325	\$150
Direct labor cost	\$150	\$475

What amount of manufacturing overhead costs will be allocated to Job #316?

A) \$1,460.00

B) \$970.00

C) \$1,748.00

D) \$1,188.00

Answer: C

Explanation: $(\$420,000 / 30,000 \text{ mh} \times 70 \text{ mh}) + [(\$240,000 / 25,000) \times 80 \text{ dlh}] = \$1,748.00$

Diff: 3

Objective: 6

AACSB: Application of knowledge

EA

27) Bauer Manufacturing uses departmental cost driver rates to allocate manufacturing overhead costs to products. Manufacturing overhead costs are allocated on the basis of machine-hours in the Machining Department and on the basis of direct labor-hours in the Assembly Department. At the beginning of 2018, the following estimates were provided for the coming year:

	<u>Machining</u>	<u>Assembly</u>
Direct labor-hours	80,000	40,000
Machine-hours	20,000	20,000
Direct labor cost	\$550,000	\$900,000
Manufacturing overhead costs	\$480,000	\$280,000

The accounting records of the company show the following data for Job #316:

	<u>Machining</u>	<u>Assembly</u>
Direct labor-hours	120	55
Machine-hours	50	5
Direct material cost	\$250	\$150
Direct labor cost	\$125	\$375

What are the total manufacturing costs of Job #316?

A) \$1,885.00

B) \$2,085.00

C) \$2,485.00

D) \$900.00

Answer: C

Explanation: DM \$400 + DML \$500 + MOH \$1,585 = \$2,485.00

Diff: 3

Objective: 6

AACSB: Application of knowledge

EA

28) River Falls Manufacturing uses a normal cost system and had the following data available for 2018:

Direct materials purchased on account	\$150,000
Direct materials requisitioned	84,000
Direct labor cost incurred	125,000
Factory overhead incurred	146,000
Cost of goods completed	288,000
Cost of goods sold	258,000
Beginning direct materials inventory	25,000
Beginning WIP inventory	69,000
Beginning finished goods inventory	51,000
Overhead application rate, as a percent of direct-labor costs	120 percent

The journal entry to record the materials placed into production would include a _____.

- A) credit to Direct Materials Inventory for \$84,000
- B) debit to Direct Materials Inventory for \$150,000
- C) credit to WIP Inventory for \$84,000
- D) debit to WIP Inventory for \$150,000

Answer: A

Diff: 2

Objective: 6

AACSB: Analytical thinking

29) River Falls Manufacturing uses a normal cost system and had the following data available for 2018:

Direct materials purchased on account	\$159,000
Direct materials requisitioned	85,000
Direct labor cost incurred	133,000
Factory overhead incurred	140,000
Cost of goods completed	285,000
Cost of goods sold	249,000
Beginning direct materials inventory	34,000
Beginning WIP inventory	70,000
Beginning finished goods inventory	55,000
Overhead application rate, as a percent of direct-labor costs	130 percent

The ending balance of direct materials inventory is _____.

- A) \$108,000
- B) \$193,000
- C) \$85,000
- D) \$119,000

Answer: A

Explanation: $\$34,000 + \$159,000 - \$85,000 = \$108,000$

Diff: 2

Objective: 6

AACSB: Application of knowledge

EA

30) River Falls Manufacturing uses a normal cost system and had the following data available for 2018:

Direct materials purchased on account	\$148,000
Direct materials requisitioned	88,000
Direct labor cost incurred	127,000
Factory overhead incurred	148,000
Cost of goods completed	299,000
Cost of goods sold	250,000
Beginning direct materials inventory	34,000
Beginning WIP inventory	70,000
Beginning finished goods inventory	55,000
Overhead application rate, as a percent of direct-labor costs	105 percent

The ending balance of work-in-process inventory is _____.

- A) \$418,350
- B) \$119,350
- C) \$127,000
- D) \$426,000

Answer: B

Explanation: $\$70,000 + \$88,000 + \$127,000 + 1.05 (\$127,000) - 299,000 = \$119,350$

Diff: 3

Objective: 6

AACSB: Application of knowledge

EA

31) River Falls Manufacturing uses a normal cost system and had the following data available for 2018:

Direct materials purchased on account	\$145,000
Direct materials requisitioned	82,000
Direct labor cost incurred	127,000
Factory overhead incurred	140,000
Cost of goods completed	288,000
Cost of goods sold	248,000
Beginning direct materials inventory	25,000
Beginning WIP inventory	63,000
Beginning finished goods inventory	53,000
Overhead application rate, as a percent of direct-labor costs	125 percent

The ending balance of finished goods inventory is _____.

- A) \$53,000
- B) \$40,000
- C) \$93,000
- D) \$288,000

Answer: C

Explanation: $\$53,000 + \$288,000 - \$248,000 = \$93,000$

Diff: 3

Objective: 6

AACSB: Application of knowledge

EA

32) Beta Corporation uses a job cost system and has two production departments, A and B. Budgeted manufacturing costs for the year are:

	<u>Department A</u>	<u>Department B</u>
Direct materials	\$800,000	\$200,000
Direct manufacturing labor	\$200,000	\$900,000
Manufacturing overhead	\$500,000	\$450,000

The actual material and labor costs charged to Job #432 were as follows:

	<u>Total</u>
Direct materials:	\$25,000
Direct labor:	
Department A	\$10,000
Department B	<u>\$12,000</u>
	\$22,000

Beta applies manufacturing overhead costs to jobs on the basis of direct manufacturing labor cost using departmental rates determined at the beginning of the year.

Proportion of manufacturing overhead with respect to the total cost of the job is _____.

- A) 39.74%
- B) 32.05%
- C) 28.21%
- D) 42.68%

Answer: A

Explanation: DM \$25,000 + DML \$22,000 + MOH \$31,000 $[(\$10,000 \times \$500,000 / \$200,000)] + [\$12,000 \times \$450,000 / \$900,000] = \$78,000$

$\$31,000 / \$78,000 = 39.74\%$

Diff: 3

Objective: 6

AACSB: Application of knowledge

33) Work-in-Process Control will be decreased (credited) for the amount of direct-labor costs incurred.

Answer: FALSE

Explanation: Work-in-Process Control will be increased (debited) for the amount of direct-labor costs incurred.

Diff: 1

Objective: 6

AACSB: Analytical thinking

34) The Cost of Goods Sold account tracks job costs from the time jobs are started until they are completed.

Answer: FALSE

Explanation: The Work-in-Process Control account tracks job costs from the time jobs are started until they are completed.

Diff: 2

Objective: 6

AACSB: Analytical thinking

EA

35) Purchases of materials are credited to materials control.

Answer: FALSE

Explanation: Purchases of materials are debited to materials control.

Diff: 1

Objective: 6

AACSB: Analytical thinking

36) The Salaries Payable Control account has underlying subsidiary ledgers.

Answer: TRUE

Diff: 1

Objective: 6

AACSB: Analytical thinking

37) The sum of all entries in underlying subsidiary ledgers equals the total amount in the corresponding general ledger control accounts.

Answer: TRUE

Diff: 1

Objective: 6

AACSB: Analytical thinking

38) When manufacturing overhead is allocated to jobs, the Manufacturing Overhead Allocated account is debited.

Answer: FALSE

Explanation: The debit is to Work-in-Process Control and the credit is Manufacturing Overhead Allocated.

Diff: 2

Objective: 6

AACSB: Application of knowledge

39) Indirect manufacturing costs are credited to Manufacturing Overhead Control.

Answer: FALSE

Explanation: Indirect manufacturing costs are debited to Manufacturing Overhead Control.

Diff: 1

Objective: 6

AACSB: Analytical thinking

40) When goods are finished, the Finished Goods Control account is debited while the Work-in-Process Control account is credited.

Answer: FALSE

Diff: 2

Objective: 6

AACSB: Application of knowledge

41) The ending balance in Work-in-Process Control represents the total costs of all jobs that have NOT yet been completed.

Answer: TRUE

Diff: 1

Objective: 6

AACSB: Analytical thinking

EA

42) Direct materials and direct manufacturing labor become a part of work-in-process inventory on the balance sheet because the direct manufacturing labor transforms the direct materials to another asset, work-in-process inventory.

Answer: TRUE

Diff: 1

Objective: 6

AACSB: Analytical thinking

43) When goods are sold, the Cost of Goods Sold account is debited while the Finished Goods Control account is credited.

Answer: TRUE

Diff: 2

Objective: 6

AACSB: Application of knowledge

44) Jordan Company has two departments, Assembly and Machining. Overhead is applied based on direct labor cost in Department Assembly and machine-hours in Department Machining. The following additional information is available:

<u>Budgeted Amounts</u>	<u>Assembly</u>	<u>Machining</u>
Direct labor cost	\$200,000	\$165,000
Factory overhead	\$300,000	\$180,000
Machine-hours	51,000 mh	30,000 mh

<u>Actual data for Job #10</u>	<u>Assembly</u>	<u>Machining</u>
Direct materials requisitioned	\$10,000	\$16,000
Direct labor cost	\$11,000	\$14,000
Machine-hours	5,000 mh	3,000 mh

Required:

- Compute the budgeted factory overhead rate for Assembly.
- Compute the budgeted factory overhead rate for Machining.
- What is the total overhead cost of Job 10?
- If Job 10 consists of 50 units of product, what is the unit cost of this job?

Answer:

a. $\$300,000/\$200,000 = 150\%$

b. $\$180,000/30,000 \text{ hrs.} = \6.00 per hour

c. $(\$11,000 \times 150 \text{ percent}) + (\$6.00 \times 3,000 \text{ hrs.}) = \$34,500$

d. $\$10,000 + \$16,000 + \$11,000 + \$14,000 + \$34,500 = \$85,500/50 \text{ units} = \$1,710 \text{ per unit}$

Diff: 2

Objective: 4, 6

AACSB: Application of knowledge

45) Job-cost records for Boucher Company contained the following data:

<u>Job No.</u>	<u>Date Started</u>	<u>Date Finished</u>	<u>Date Sold</u>	<u>Total Cost of Job at June 30</u>
220	May 18	June 12	June 20	\$6,000
221	May 20	June 19	June 21	4,000
222	June 7	July 5	July 12	7,000
223	June 10	June 28	July 1	6,500
224	June 19	July 16	July 25	8,000

Required:

- Compute WIP inventory at June 30.
- Compute finished goods inventory at June 30.
- Compute cost of goods sold for June.

Answer:

- $\$7,000 + \$8,000 = \$15,000$
- $\$6,500$
- $\$6,000 + \$4,000 = \$10,000$

Diff: 2

Objective: 4, 6

AACSB: Analytical skills

46) Benny Industries allocates manufacturing overhead at a predetermined rate of 160% of direct labor cost. Any overallocated or underallocated overhead is closed to the cost of goods sold at the end of the month. Below is information on job 205 that was in process at the end of the month of October

Direct materials \$4,000

Direct labor \$3,000

Allocated manufacturing overhead \$4,800

Jobs 206, 207, and 208 were started in November. Direct materials that were used in November were \$26,000 and direct labor costs were \$21,000. For the month of November, actual manufacturing overhead was \$32,000. The only job still in process on the last day of November was job 104 with the following costs: \$3,000 for direct materials and \$1,500 for direct labor.

Required:

Calculate the cost of goods manufactured for November.

Answer: Beginning work-in-process \$11,800 (Job 205 in process at the end of October)
 + Direct labor for the month of November \$21,000
 + Allocated manufacturing overhead \$33,600 ($\$21,000 \times 1.6$)
 + Direct materials \$26,000
 - Ending work-in-process \$6,900 ($\$3,000 + \$1,500 + (\$1,500 \times 1.6)$)
 = Cost of goods manufactured \$99,300

Diff: 3

Objective: 4, 6

AACSB: Application of knowledge

EA

47) Cowley County Hospital uses a job-costing system for all patients who have surgery. In March, the pre-operating room (PRE-OP) and operating room (OR) had budgeted allocation bases of 4,000 nursing hours and 2,000 nursing hours, respectively. The budgeted nursing overhead charges for each department for the month were \$168,000 and \$132,000, respectively. The hospital floor for surgery patients had budgeted overhead costs of \$1,200,000 and 15,000 nursing hours for the month. For patient Fred Adams, actual hours incurred were eight and four hours, respectively, in the PRE-OP and OR rooms. He was in the hospital for 4 days (96 hours). Other costs related to Adams were:

	PRE-OP	OR	In-room
	<u>Costs</u>	<u>Costs</u>	<u>Costs</u>
Patient medicine	\$ 200	\$ 500	\$2,400
Direct nursing time	\$1,000	\$2,000	\$3,000

The hospital uses a budgeted overhead rate for applying overhead to patient stays.

Required:

What is the total cost of the stay of patient Fred Adams?

Answer: Nursing overhead rate PRE-OP = \$168,000/4,000 hrs.
= \$42 per hr.

Nursing overhead rate OR = \$132,000/2,000 hrs.
= \$66 per hr.

Overhead rate for surgery floor = \$1,200,000/15,000 hrs.
= \$80 per hr.

Patient Fred Adams:

	<u>PRE-OP</u>	<u>OR</u>	<u>In-room</u>	<u>Totals</u>
Patient medicine	\$ 200	\$ 500	\$2,400	\$3,100
Direct nursing time	1,000	2,000	3,000	6,000
Nursing overhead:				
PRE-OP (\$42 × 8)	336			336
OR (\$66 × 4)		264		264
In-room (\$80 × 96)	0	0	7,680	7,680
Total	<u>\$1,536</u>	<u>\$2,764</u>	<u>\$13,080</u>	<u>\$17,380</u>

Diff: 3

Objective: 4, 6

AACSB: Analytical skills

48) The Dougherty Furniture Company manufactures tables. In March, the two production departments had budgeted allocation bases of 4,000 machine-hours in Department 100 and 8,000 direct manufacturing labor-hours in Department 200. The budgeted manufacturing overheads for the month were \$57,500 and \$62,500, respectively. For Job A, the actual costs incurred in the two departments were as follows:

	<u>Department 100</u>	<u>Department 200</u>
Direct materials purchased on account	\$110,000	\$177,500
Direct materials used	32,500	13,500
Direct manufacturing labor	52,500	53,500
Indirect manufacturing labor	11,000	9,000
Indirect materials used	7,500	4,750
Lease on equipment	16,250	3,750
Utilities	1,000	1,250

Job A incurred 800 machine-hours in Department 100 and 300 manufacturing labor-hours in Department 200. The company uses a budgeted overhead rate for applying overhead to production.

Required:

- Determine the budgeted manufacturing overhead rate for each department.
- Prepare the necessary journal entries to summarize the March transactions for Department 100.
- What is the total cost of Job A?

Answer:

- Manufacturing overhead rate Department 100 = $\$57,500/4,000$ hours
= \$14.375 per machine-hour

$$\begin{aligned} \text{Manufacturing overhead rate Department 200} &= \$62,500/8,000 \text{ hours} \\ &= \$7.8125 \text{ per labor-hour} \end{aligned}$$

b. Materials Control Department 100	110,000	
Accounts Payable Control		110,000
Work-in-Process Control Department 100	32,500	
Manufacturing Overhead Control Department 100	7,500	
Materials Control Department 100		40,000
Work-in-Process Control Department 100	52,500	
Manufacturing Overhead Control Department 100	11,000	
Wages Payable Control		63,500
Manufacturing Overhead Control Department 100	17,250	
Leaseholds Payable Control		16,250
Utilities Payable Control		1,000
Work-in-Process Control Dept. 100 ($\$14.375 \times 800$ hrs)	11,500	
Manufacturing Overhead Allocated		11,500

EA

c. **Job A:**

Direct materials Dept. 100	\$ 32,500
Direct materials Dept. 200	13,500
Direct manufacturing labor Dept. 100	52,500
Direct manufacturing labor Dept. 200	53,500
Manufacturing overhead Dept. 100 (\$14.375 x 800)	11,500
Manufacturing overhead Dept. 200 (\$7.8125 x 300)	<u>2,344</u>
Total	<u>\$165,844</u>

Diff: 3

Objective: 6

AACSB: Analytical skills

49) Explain the procedure how overhead indirect costs become a part of work-in process inventory.

Answer: The overhead (indirect) costs cannot be easily traced to individual jobs. Manufacturing overhead costs, therefore, are first accumulated in a manufacturing overhead account and then allocated to individual jobs. As manufacturing overhead costs are allocated, they become part of work-in-process inventory.

Diff: 2

Objective: 6

AACSB: Analytical thinking

50) Explain how the following statement be true: Often the manufacturing overhead control account (debit) does not equal the manufacturing overhead allocated account (credit).

Answer: If these accounts do not equal, then overhead has either been overallocated or underallocated. Keep in mind that the manufacturing overhead control account contains the actual overhead for the period while the allocated account contains the estimated overhead that was applied to WIP during period as jobs were worked on. In any event, when the two accounts are not equal it means that the cost of the cost object has not been correctly estimated during the period and the underallocated amount or overallocated amount is disposed of via adjusting entries.

Diff: 2

Objective: 6

AACSB: Analytical thinking

51) What are three possible ways to dispose of underallocated or overallocated overhead costs at the end of a fiscal year? Briefly comment on the theoretical correctness or incorrectness of each method.

Answer: One way to dispose of underallocated or overallocated overhead costs at the end of a fiscal year would be to prorate the underallocated or overallocated overhead costs to the work-in-process control account, the finished goods control account, and to the cost of goods sold account based on the relative amounts in each account. This is a theoretically correct method since it is reasonable to believe that the underallocated or overallocated overhead costs should attach themselves to the goods as they are produced. A second way to dispose of the underallocated or overallocated overhead costs at the end of a fiscal year would be to adjust the allocation rate based on the actual amounts and reallocate the overhead to completed jobs. This is also a theoretically correct method. A third way is to clear all underallocated or overallocated overhead to the cost of goods sold account. This is not theoretically valid but it is practical if the amount of underallocated or overallocated overhead is not material.

Diff: 3

Objective: 6

AACSB: Analytical thinking

4.7 Objective 4.7

1) The spreading of underallocated or overallocated overhead among ending work-in-process, finished goods, and cost of goods sold is called _____.

- A) the adjusted allocation rate approach
- B) the proration approach
- C) the write-off of cost of goods sold approach
- D) the weighted-average cost approach

Answer: B

Diff: 1

Objective: 7

AACSB: Analytical thinking

2) The method that restates all overhead entries in the general ledger and subsidiary ledgers using actual cost rates rather than budgeted cost rates is called _____.

- A) the adjusted allocation rate approach
- B) the proration approach
- C) the write-off of cost of goods sold approach
- D) the weighted-average cost approach

Answer: A

Diff: 1

Objective: 7

AACSB: Analytical thinking

3) ABC Manufacturing Inc. ends the month with two jobs still in progress. Job 5 has \$10,000 of materials, \$2,000 of direct labor and \$8,000 of manufacturing overhead allocated. Job 6 has \$30,000 of materials, \$2,000 of direct labor and \$12,000 of manufacturing overhead allocated. The cost of goods sold for the month was \$40,000 and there was no finished goods in stock as the month ended. If the manufacturing overhead was underallocated by \$10,000, which of the following choices would be the correct way to prorate it based on ending balances before proration?

- A) The entire \$10,000 of underallocated manufacturing overhead should be allocated to cost of goods sold
- B) \$4,000 of the underallocated manufacturing overhead should be split between Job 6 and cost of goods sold
- C) \$2,000 of the overallocation should be allocated to Job 5
- D) The entire \$10,000 of underallocated manufacturing overhead should be added to operating expenses for the month

Answer: C

Diff: 2

Objective: 7

AACSB: Application of knowledge

EA

4) Global Manufacturing Inc. uses normal costing during the year to allocate manufacturing overhead to jobs in a job costing system. At year end, it uses the adjusted allocation rate approach to account for underallocated or overallocated overhead. During 2018, Global's manufacturing overhead was underallocated by 10%. Job 117 had the following costs:

Direct materials \$1,600

Direct labor \$3,400

Manufacturing overhead allocated \$2,000

Which of the following would be the after adjustment cost of Job 117?

A) \$7,340

B) \$7,200

C) \$7,700

D) \$6,300

Answer: B

Explanation: DM \$1,600 + DL \$3,400 + MOH Allocated ($\$2,000 \times 1.1$) = \$7,200

Diff: 3

Objective: 7

AACSB: Application of knowledge

5) The _____ adjusts individual job-cost records to account for underallocated or overallocated overhead.

A) adjusted allocation-rate

B) proration approach

C) write-off to cost of goods sold approach

D) weighted-average cost approach

Answer: A

Diff: 1

Objective: 7

AACSB: Analytical thinking

6) The adjusted allocation approach yields the benefits of _____.

A) timeliness and convenience of normal costing

B) allocating budgeted manufacturing overhead costs at the end of the year

C) write-off to the cost of goods sold approach

D) the proration approach

Answer: A

Diff: 1

Objective: 7

AACSB: Analytical thinking

EA

7) The approach often used when dealing with small amounts of underallocated or overallocated overhead is the _____.

- A) adjusted allocation-rate approach
- B) proration approach
- C) write-off to cost of goods sold approach
- D) adjusted write-off approach

Answer: C

Diff: 1

Objective: 7

AACSB: Analytical thinking

8) The Robinson Corporation manufactures automobile parts. During the year, the company sold \$5,600,000 of parts that had a cost of \$3,200,000. At year end, these are the balances for cost of goods sold and its manufacturing overhead accounts:

Cost of goods sold \$3,200,000

Manufacturing overhead allocated \$1,400,000

Manufacturing overhead control \$1,495,000

What would be the correct journal entry to close out the overhead accounts assuming that the write-off to cost of goods sold approach is used?

- | | | |
|-----------------------------------|-------------|-------------|
| A) Manufacturing overhead control | | \$1,495,000 |
| Cost of goods sold | \$95,000 | |
| Manufacturing overhead allocated | \$1,400,000 | |
| B) Sales | | \$5,600,000 |
| Cost of goods sold | \$3,200,000 | |
| Gross profit | \$2,400,000 | |
| C) Finished goods | | \$95,000 |
| Manufacturing overhead allocated | \$1,400,000 | |
| Manufacturing overhead control | \$1,495,000 | |
| D) Cost of goods sold | | \$95,000 |
| Manufacturing overhead allocated | \$1,400,000 | |
| Manufacturing overhead control | \$1,495,000 | |

Answer: D

Diff: 2

Objective: 7

AACSB: Analytical thinking

EA

9) A company would use multiple cost-allocation bases _____.

- A) if managers believed the benefits exceeded the additional costs of that costing system
- B) because there is more than one way to allocate overhead
- C) because this is a simpler approach than using one cost allocation base
- D) if managers believe that using multiple cost-allocation bases is the only acceptable method

Answer: A

Diff: 2

Objective: 7

AACSB: Analytical thinking

Filippucci Company used a budgeted indirect-cost rate for its manufacturing operations, the amount allocated (\$200,000) is different from the actual amount incurred (\$225,000).

Ending balances in the relevant accounts are:

Work-in-Process	\$ 10,000
Finished Goods	20,000
Cost of Goods Sold	170,000

10) Under the writeoff approach, the difference between Manufacturing Overhead Control and Manufacturing Overhead Allocated is adjusted in the _____.

- A) Cost of Goods Sold account
- B) Work-in Process account
- C) Manufacturing Overhead account
- D) Miscellaneous Expenses account

Answer: A

Diff: 2

Objective: 7

AACSB: Analytical thinking

11) Which account is credited to write off the difference between allocated and actual overhead using the proration approach?

- A) Work-in Process Control
- B) Manufacturing Overhead Allocated
- C) Finished Goods Control
- D) Manufacturing Overhead Control

Answer: D

Diff: 2

Objective: 7

AACSB: Analytical thinking

EA

12) Financial Planning Partners Inc., employs 12 full-time CPAs and 10 paraprofessionals. Direct and indirect costs are applied on a professional labor-hour basis that includes both attorney and paraprofessional hours. Following is information for 2018:

	<u>Budget</u>	<u>Actual</u>
Indirect costs	\$300,000	\$309,000
Annual salary of each attorney	\$118,000	\$128,000
Annual salary of each paraprofessional	\$31,500	\$32,500
Total professional labor-hours	50,000 dlh	56,000 dlh

When using a normal costing system, year-end accounting records will show that indirect costs are _____.

- A) perfectly allocated
- B) underallocated
- C) within budget
- D) overallocated

Answer: D

Explanation: Overallocated; allocated is \$336,000 ($\$300,000 / 50,000 \times 56,000$ dlh), when actual is only \$309,000.

Diff: 3

Objective: 7

AACSB: Application of knowledge

13) Overhead costs allocated each month are expected to equal actual overhead costs incurred each month.

Answer: FALSE

Explanation: Seasonal fluctuations and lump-sum payments for items such as property taxes are not expected to be incurred evenly throughout the year. The allocation base (activity such as direct labor hours, machine hours, direct labor costs etc.) can fluctuate (seasonal fluctuations) and can end up being more or less than was expected meaning more or less overhead is applied.

Diff: 2

Objective: 7

AACSB: Analytical thinking

14) ABC Manufacturing Inc. ends the month with two jobs still in progress. Job 5 has \$10,000 of materials, \$2,000 of direct labor and \$8,000 of manufacturing overhead allocated. Job 6 has \$30,000 of materials, \$2,000 of direct labor and \$10,000 of manufacturing overhead allocated. The cost of goods sold for the month was \$40,000 and of that 30% was overhead. There were no finished goods in stock as the month ends. If the manufacturing overhead is underallocated by \$10,000, which of the following choices would be the correct way to prorate it, assuming the proration is based on the allocated overhead in the ending balances of work-in-process, finished goods, and cost of goods sold?

- A) Job 5 would be allocated another \$2,500 of cost
- B) Job 6 would be allocated another \$4,000 of cost
- C) Cost of goods sold would be reduced by \$3,300
- D) Cost of goods sold would be increase by \$10,000

Answer: B

Diff: 1

Objective: 7

AACSB: Application of knowledge

15) Management wants to prepare a profitability analysis of the company's customers and therefore the most accurate choice of disposing of underallocated or overallocated manufacturing overhead at year-end is the proration based on final balances of work-in-process, finished goods, and cost of goods sold.

Answer: FALSE

Explanation: The adjusted allocation-rate method would be more accurate as it would adjust individual jobs based on the actual overhead cost rate, calculated when actual overhead costs are known at the end of the period.

Diff: 2

Objective: 7

AACSB: Analytical thinking

16) The proration approach to allocating overapplied or underapplied overhead adjusts individual job-cost records.

Answer: FALSE

Explanation: The proration approach to allocating overapplied or underapplied overhead adjusts only general ledger accounts and not subsidiary ledgers or individual job-cost records.

Diff: 2

Objective: 7

AACSB: Analytical thinking

17) The adjusted-allocation rate approach offers the benefit of a costing system that provides overhead cost data during the year so that pricing, budgeting, and interim reporting can occur and a year-end adjustment to manufacturing overhead allocations to individual jobs that are better aligned with actual manufacturing overhead costs that are known at year-end.

Answer: TRUE

Diff: 2

Objective: 7

AACSB: Analytical thinking

EA

18) Under the proration approach, the sum of the amounts shown in the subsidiary ledgers will not match the amounts shown in the general ledger because no adjustments from budgeted to actual manufacturing overhead rates are made in the individual job-cost records.

Answer: TRUE

Diff: 2

Objective: 7

AACSB: Analytical thinking

19) The actual costs of all individual overhead categories are recorded in the Manufacturing Overhead Control account.

Answer: TRUE

Diff: 1

Objective: 7

AACSB: Analytical thinking

20) Proration is the spreading of underallocated or overallocated overhead among ending work in process, finished goods, and costs of goods sold.

Answer: TRUE

Diff: 1

Objective: 7

AACSB: Analytical thinking

21) It is appropriate for service organizations such as public accounting firms to use job costing.

Answer: TRUE

Explanation: Accounting firms, law firms, and other firms in the service industry can use Job costing.

Diff: 1

Objective: 7

AACSB: Analytical thinking

22) Innovative Metal Products Company manufactures pipes and applies manufacturing costs to production at a budgeted indirect-cost rate of \$12 per direct labor-hour. The following data are obtained from the accounting records for June 2018:

Direct materials	\$400,000
Direct labor (16,000 hours @ \$11/hour)	\$ 240,000
Indirect labor	\$ 25,000
Plant facility rent	\$ 100,000
Depreciation on plant machinery and equipment	\$ 42,000
Sales commissions	\$ 30,000
Administrative expenses	\$ 40,000

Required:

- What actual amount of manufacturing overhead costs was incurred during June 2018?
- What amount of manufacturing overhead was allocated to all jobs during June 2018?
- For June 2018, was manufacturing overhead underallocated or overallocated? Explain.

Answer:

- $\$25,000 + \$100,000 + \$42,000 = \$167,000$
- $16,000 \times \$12 \text{ per dlh} = \$192,000$
- Underallocated by \$25,000: Only allocated \$192,000 of the \$167,000 of actual overhead

Diff: 2

Objective: 7

AACSB: Application of knowledge

EA

23) Moira Company has just finished its first year of operations and must decide which method to use for adjusting cost of goods sold. Because the company used a budgeted indirect-cost rate for its manufacturing operations, the amount that was allocated (\$435,000) to cost of goods sold was different from the actual amount incurred (\$425,000).

Ending balances in the relevant accounts were:

Work-in-Process	\$ 40,000
Finished Goods	80,000
Cost of Goods Sold	680,000

Required:

- Prepare a journal entry to write off the difference between allocated and actual overhead directly to Cost of Goods Sold. Be sure your journal entry closes the related overhead accounts.
- Prepare a journal entry that prorates the write-off of the difference between allocated and actual overhead using ending account balances. Be sure your journal entry closes the related overhead accounts.

Answer:

a. Manufacturing Overhead Allocated	435,000		
Cost of Goods Sold		10,000	
Manufacturing Overhead Control		425,000	

b. Work-in-process	\$ 40,000	5 %	× \$10,000	= \$500
Finished goods	80,000	10	× \$10,000	= 1,000
Cost of goods sold	<u>680,000</u>	<u>85</u>	× \$10,000	= 8,500
Total	<u>\$800,000</u>	<u>100 %</u>		

Manufacturing Overhead Allocated	435,000		
Work-in-Process		500	
Finished Goods		1,000	
Cost of Goods Sold		8,500	
Manufacturing Overhead Control		425,000	

Diff: 3

Objective: 7

AACSB: Analytical skills

24) Jacobs Company manufactures refrigerators. The company uses a budgeted indirect-cost rate for its manufacturing operations and during 2018 allocated \$1,000,000 to work-in-process inventory. Actual overhead incurred was \$1,100,000.

Ending balances in the following accounts are:

Work-in-Process	\$ 100,000
Finished Goods	750,000
Cost of Goods Sold	4,150,000

Required:

- Prepare a journal entry to write off the difference between allocated and actual overhead directly to Cost of Goods Sold. Be sure your journal entry closes the related overhead accounts.
- Prepare a journal entry that prorates the write-off of the difference between allocated and actual overhead using ending account balances. Be sure your journal entry closes the related overhead accounts.

Answer:

a. Manufacturing Overhead Allocated	1,000,000	
Cost of Goods Sold	100,000	
Manufacturing Overhead Control		1,100,000

b. Work-in-process	\$100,000	2.0%	× \$100,000	= \$2,000
Finished goods	750,000	15.0	× \$100,000	= \$15,000
Cost of goods sold	<u>4,150,000</u>	<u>83.0</u>	× \$100,000	= \$83,000
Total	<u>\$5,000,000</u>	<u>100.0%</u>		

Manufacturing Overhead Allocated	1,000,000	
Work-in-Process	2,000	
Finished Goods	15,000	
Cost of Goods Sold	83,000	
Manufacturing Overhead Control		1,100,000

Diff: 3

Objective: 7

AACSB: Application of knowledge

EA

25) The following information was gathered for Longview Company for the year ended December 31, 2018:

	<u>Budgeted</u>	<u>Actual</u>
Direct labor-hours	75,000 dlh	80,000 dlh
Factory overhead	\$600,000	\$625,000

Assume that direct labor-hours are the cost-allocation base.

Required:

- a. Compute the budgeted factory overhead rate.
- b. Compute the factory overhead applied.
- c. Compute the amount of over/underapplied overhead.

Answer:

- a. $\$600,000 / 75,000 \text{ hrs.} = \8.00 per hour
- b. $\$8.00 \times 80,000 \text{ hrs.} = \$640,000$
- c. $\$640,000 - \$625,000 = \$15,000 \text{ overapplied}$

Diff: 2

Objective: 7

AACSB: Application of knowledge

EA

26) Excellent Products, Inc., uses a budgeted factory overhead rate to apply overhead to production. The following data are available for the year ended December 31, 2018.

	<u>Budgeted</u>	<u>Actual</u>
Factory overhead	\$675,000	\$716,000
Direct labor costs	\$450,000	\$432,000
Direct labor-hours	12,500 dlh	13,325 dlh

Required:

- Determine the budgeted factory overhead rate based on direct labor-hours.
- What is the applied overhead based on direct labor-hours?
- Is overhead overapplied or underapplied? Explain.

Answer:

- $\$675,000 / 12,500 \text{ hrs.} = \54.00 per hour
- $\$54.00 \times 13,325 \text{ hrs.} = \$719,550$
- $\$716,000 - \$719,550 = \$3,550 \text{ overapplied}$

Diff: 2

Objective: 7

AACSB: Application of knowledge

27) Schulz Corporation applies overhead based upon machine-hours. Budgeted factory overhead was \$266,400 and budgeted machine-hours were 18,500. Actual factory overhead was \$287,920 and actual machine-hours were 19,050. Before disposition of under/overapplied overhead, the cost of goods sold was \$560,000 and ending inventories were as follows:

Direct materials	\$ 60,000
WIP	190,000
Finished goods	<u>250,000</u>
Total	<u>\$500,000</u>

Required:

- Determine the budgeted factory overhead rate per machine-hour.
- Compute the over/underapplied overhead.
- Prepare the journal entry to dispose of the variance using the write-off to cost of goods sold approach.
- Prepare the journal entry to dispose of the variance using the proration approach.

Answer:

- $\$266,400/18,500 \text{ hrs.} = \14.40 per hour
- $\$14.40 \times 19,050 \text{ hours} = \$274,320 - \$287,920 = \$13,600 \text{ underapplied overhead}$
- | | | |
|-------------------------------------|--------|--------|
| Cost of Goods Sold | 13,600 | |
| Factory Department Overhead Control | | 13,600 |
- $\$560,000 + \$190,000 + \$250,000 = \$1,000,000$

Cost of Goods Sold:

$$\$560,000/\$1,000,000 = 56\% \times \$13,600 = \$7,616$$

WIP:

$$\$190,000/\$1,000,000 = 19\% \times \$13,600 = \$2,584$$

Finished Goods:

$$\$250,000/\$1,000,000 = 25\% \times \$13,600 = \$3,400$$

Cost of Goods Sold	7,616	
WIP Inventory	2,584	
Finished Goods Inventory	3,400	
Factory Department Overhead Control		13,600

Diff: 3

Objective: 7

AACSB: Application of knowledge

EA

28) Sedgwick County Hospital uses an indirect job-costing system for all patients. In June, the budgeted nursing care charges for each department and budgeted allocation bases of nursing days are as follows:

<u>June</u>	<u>Critical Care</u>	<u>Special Care</u>	<u>General Care</u>
Budgeted nursing costs	\$2,480,000	\$1,644,000	\$1,280,400
Budgeted nursing days	5,000	4,000	8,000

Patient Ms. Graves spent six days in critical care and eight days in special care during June. The remainder of the 30-day month was spent in the general care area.

Required:

- Determine the budgeted overhead rate for each department.
- What are the total charges to Ms. Graves if she was in the facility the entire month?

Answer:

- Overhead rate critical care = $\$2,480,000 / 5,000$ nursing days = \$496.00 per day.
Overhead rate special care = $\$1,644,000 / 4,000$ nursing days = \$411.00 per day
Overhead rate general = $\$1,280,400 / 8,000$ nursing days = \$160.05 per day

- Ms. Graves:

Critical care	$\$496.00 \times 6$ days =	\$2,976.00
Special care	$\$411.00 \times 8$ days =	3,288.00
General care	$\$160.05 \times 16$ days =	<u>2,560.80</u>
Total overhead charges		<u>\$8,824.80</u>

Diff: 2

Objective: 7

AACSB: Application of knowledge

29) Hammond and Jarrett provide tax consulting for estates and trusts. Their job-costing system has a single direct-cost category (professional labor) and a single indirect-cost pool (research support). The indirect-cost pool contains all the costs except direct personnel costs. All budgeted indirect costs are allocated to individual jobs using actual professional labor-hours.

Required:

- a. Discuss the reasons a consulting firm might use a normal costing system rather than an actual costing system.
- b. What might be some reasons for the firm to change from a one-pool to a multiple-pool allocation concept?

Answer:

a. Budget rates are normally used because actual costs may not be available until some time after a job is completed. Decisions about billing a client for services rendered generally must be made immediately after the job is completed. Also, actual costs may reflect short-run changes in the environment that may distort the billing process. Budgeted costs are affected by weekly or monthly fluctuations and, therefore, offer a stable comparison and assignment of costs throughout the accounting cycle.

b. Having separate professional labor-hour rates assists in assigning the personnel costs to jobs closest to their real values. This helps to maintain different costs for jobs that have the same number of hours but a different mix of professionals doing the job. Seldom is there only one cause-and-effect relationship between a job and the tasks performed on the job; therefore, it may also be a good idea to develop multiple indirect-cost assignments (i.e., one for staff support and others for such items as computer support or general administrative support).

Diff: 3

Objective: 7

AACSB: Analytical thinking

EA

30) Benny Industries allocates manufacturing overhead at a predetermined rate of 160% of direct labor cost. Any overallocated or underallocated overhead is closed to the cost of goods sold at the end of the month. Below is information on job 205 that was in process at the end of the month of October

Direct materials \$4,000
Direct labor \$3,000
Allocated manufacturing overhead \$4,800

Jobs 206, 207, and 208 were started in November. Direct materials that were used in November were \$26,000 and direct labor costs were \$21,000. For the month of November, actual manufacturing overhead was \$32,000. The only job still in process on the last day of November was job 104 with the following costs: \$3,000 for direct materials and \$1,500 for direct labor.

Required:

- a. Calculate the cost of goods manufactured for November.
- b. Calculate the amount of overallocated or underallocated manufacturing overhead that should be closed to cost of goods sold on November 30. Be sure to label the answer as either overallocated or underallocated.
- c. What are the accounting entries to close the overallocated or underallocated manufacturing overhead on November 30?

Answer:

a. Beginning work-in-process \$11,800 (Job 205 in process at the end of October)
+ Direct labor for the month of November \$21,000
+ Allocated manufacturing overhead \$33,600 ($\$21,000 \times 1.6$)
+ Direct materials \$26,000
- Ending work-in-process \$6,900 ($\$3,000 + \$1,500 + (\$1,500 \times 1.6)$)
= Cost of goods manufactured \$99,300

b. The amount of allocated overhead was \$33,600 while the actual manufacturing overhead was \$32,000. The difference is \$1,600 which is overallocated.

c. Manufacturing Overhead Allocated \$1,600
 Cost of goods sold \$1,600

Diff: 3

Objective: 7

AACSB: Application of knowledge

31) What are three possible ways to dispose of underallocated or overallocated overhead costs at the end of a fiscal year? Briefly comment on the theoretical correctness or incorrectness of each method.

Answer: One way to dispose of underallocated or overallocated overhead costs at the end of a fiscal year would be to prorate the underallocated or overallocated overhead costs to the work-in-process control account, the finished goods control account, and to the cost of goods sold account based on the relative amounts in each account. This is a theoretically correct method since it is reasonable to believe that the underallocated or overallocated overhead costs should attach themselves to the goods as they are produced. A second way to dispose of the underallocated or overallocated overhead costs at the end of a fiscal year would be to adjust the allocation rate based on the actual amounts and reallocate the overhead to completed jobs. This is also a theoretically correct method. A third way is to clear all underallocated or overallocated overhead to the cost of goods sold account. This is not theoretically valid but it is practical if the amount of underallocated or overallocated overhead is not material.

Diff: 3

Objective: 7

AACSB: Analytical thinking

4.8 Objective 4.8

1) In the service sector _____.

- A) direct labor costs are always easy to trace to jobs
- B) a budgeted direct-labor cost rate may be used to apply direct labor to jobs
- C) normal costing may not be used
- D) overhead is generally applied using an actual cost-allocation rate

Answer: B

Diff: 2

Objective: 8

AACSB: Analytical thinking

2) In the service sector, to achieve timely reporting on the profitability of an engagement, a company will use _____.

- A) budgeted rates for all direct costs
- B) budgeted rates for indirect costs
- C) actual costing
- D) budgeted rates for some direct costs and indirect costs

Answer: D

Diff: 2

Objective: 8

AACSB: Analytical thinking

3) Advantage Inc. employs 29 professional cleaners. Budgeted costs total \$1,955,000 of which \$1,702,000 is direct costs. Budgeted indirect costs are \$839,500 and actual indirect costs were \$795,600. Budgeted professional labor-hours are 1,150,000 and actual hours were 1,221,875. What is the budgeted direct cost-allocation rate?

- A) \$1.70 per hour
- B) \$1.60 per hour
- C) \$0.73 per hour
- D) \$1.48 per hour

Answer: D

Explanation: $\$1,702,000 / 1,150,000 = \1.48

Diff: 2

Objective: 8

AACSB: Application of knowledge

4) The budgeted direct-labor cost rate includes _____.

- A) budgeted total costs in indirect cost pool
- B) budgeted total direct-labor costs in the denominator
- C) budgeted total direct-labor costs in the numerator
- D) budgeted total direct-labor hours in the numerator

Answer: C

Diff: 2

Objective: 8

AACSB: Analytical thinking

5) The accounting firm of Smith & Jones LLC has a staff of 34 staff accountants and auditors and administrative staff. Budgeted total costs of the firm total \$5,000,000 of which \$2,900,000 is direct-labor costs. Assuming that the remaining costs are indirect and direct-labor cost is the allocation base, calculate the budgeted indirect cost rate.

- A) 42% of direct-labor cost
- B) 72% of direct-labor cost
- C) 58% of direct-labor cost
- D) 172% of direct-labor cost

Answer: B

Explanation: $2,100,000 / 2,900,000$

Diff: 2

Objective: 8

AACSB: Application of knowledge

EA

6) A local accounting firm employs 24 full-time professionals. The budgeted annual compensation per employee is \$45,000. The average chargeable time is 420 hours per client annually. All professional labor costs are included in a single direct-cost category and are allocated to jobs on a per-hour basis.

Other costs are included in a single indirect-cost pool, allocated according to professional labor-hours. Budgeted indirect costs for the year are \$790,000, and the firm expects to have 90 clients during the coming year.

What is the budgeted direct labor cost rate per hour? (Round the final answer to the nearest cent.)

- A) \$28.57 per hour
- B) \$20.90 per hour
- C) \$4.46 per hour
- D) \$107.14 per hour

Answer: A

Explanation: Total direct labor cost = $\$45,000 \times 24 = \$1,080,000$

Total hours = $420 \times 90 = 37,800$ hours

Direct labor cost rate per hour = $\$1,080,000 / 37,800 = \28.57 per hour

Diff: 2

Objective: 8

AACSB: Application of knowledge

7) A local accounting firm employs 28 full-time professionals. The budgeted annual compensation per employee is \$41,000. The average chargeable time is 430 hours per client annually. All professional labor costs are included in a single direct-cost category and are allocated to jobs on a per-hour basis.

Other costs are included in a single indirect-cost pool, allocated according to professional labor-hours. Budgeted indirect costs for the year are \$787,000, and the firm expects to have 95 clients during the coming year.

What is the budgeted indirect-cost rate per hour?

- A) \$6.86 per hour
- B) \$65.37 per hour
- C) \$28.10 per hour
- D) \$19.27 per hour

Answer: D

Explanation: Indirect-cost rate per hour = $\$787,000 / 430 \times 95 = \19.27 per hour

Diff: 2

Objective: 8

AACSB: Application of knowledge

EA

8) A local accounting firm employs 27 full-time professionals. The budgeted annual compensation per employee is \$40,500. The average chargeable time is 420 hours per client annually. All professional labor costs are included in a single direct-cost category and are allocated to jobs on a per-hour basis.

Other costs are included in a single indirect-cost pool, allocated according to professional labor-hours. Budgeted indirect costs for the year are \$781,500, and the firm expects to have 75 clients during the coming year.

If ten clients are lost and the workforce stays at 27 employees, then the direct labor cost rate per hour:

- A) \$34.71 per hour
- B) \$24.81 per hour
- C) \$40.05 per hour
- D) \$21.89 per hour

Answer: C

Explanation: Total direct cost = $\$40,500 \times 27 = \$1,093,500$

Total hours = $420 \times 65 = 27,300$ hours

Direct cost rate per hour = $\$1,093,500 / 27,300 = \40.05 per hour

The direct labor cost rate per hour increased from \$34.71 per hour to \$40.05 per hour

Diff: 2

Objective: 8

AACSB: Application of knowledge

9) James Ford an architect charges \$150 per hour for his time spent drawing blueprints for clients. His budgeted annual cost to run his office is \$12,000 a year (rent and utilities) and he allocates these indirect costs based on direct labor hours. Ford predicts that he will work about 1,000 billable hours per year for his clients. Recently, Ford completed a set of blueprints for a garage for one of his clients and involving 30 hours of work, How much indirect costs should ford allocate to the garage blueprints job when considering how much to charge his client and cover his costs?

- A) \$450
- B) \$810
- C) \$360
- D) \$330

Answer: C

Diff: 1

Objective: 8

AACSB: Analytical thinking

10) In some variations of normal costing, organizations use budgeted rates to assign direct costs as well as indirect costs to jobs.

Answer: TRUE

Diff: 2

Objective: 8

AACSB: Analytical thinking

EA

11) In some service organizations, a variation of normal costing is used to provide timely information during the progression of the year, using budgeted direct labor costs and allocated budgeted overhead.

Answer: TRUE

Diff: 2

Objective: 8

AACSB: Analytical thinking

12) An accounting firm completes an audit for a local union and has the following cost information for the year.

Indirect labor \$60,000

Office lease \$22,000

Depreciation on office equipment \$8,000

Marketing expense \$20,000

Utilities \$15,000

The firm's direct labor costs are budgeted at \$500,000 for the year and overhead is allocated based on direct labor costs. The firm used 1 partner and 2 audit associates on the audit. Partners are paid \$150 per hour while audit associates earn \$50 per hour. The partner spent 6 hours on the engagement while the audit associates spent a total of 40 hours.

Required:

What is the cost of the audit?

Answer: $(\$150 \times 6) + (40 \times \$50) + (\$2,900 \times (\$125,000/\$500,000)) = \$3,625$

Diff: 2

Objective: 8

AACSB: Analytical skills

13) A local engineering firm is bidding on a design project for a new client. The total budgeted direct-labor costs for the firm are \$400,000. The total budgeted indirect costs are \$600,000. It is estimated that there are 8,000 billable hours in total.

Required:

a. What is the budgeted direct-labor cost rate?

b. What is the budgeted indirect-cost rate assuming direct-labor cost is the allocation base?

c. What should be the engineering firm bid on the project if the direct labor hours are estimated at 300 hours?

Answer:

a. $\$400,000/8,000 = \$50/\text{hour}$

b. $\$600,000/\$400,000 = 150\%$ of direct labor cost

c. $(300 \times 50) + (15,000 \times 1.5) = \$37,500$

Diff: 3

Objective: 8

AACSB: Analytical skills

14) A local CPA employs ten full-time professionals. The budgeted compensation per employee is \$50,000. The maximum billable hours for each client are 400. Clients always receive their full amount of time. All professional labor costs are included in a single direct-cost category and are traced to jobs on a per-hour basis. Any other costs are included in a single indirect-cost pool, allocated according to professional labor-hours. Budgeted indirect costs for the year are \$200,000 and the firm had 20 clients.

Required:

- a. What is the direct-labor-cost rate per hour?
- b. What is the indirect-cost rate per hour?

Answer:

a. Total direct cost = $\$50,000 \times 10 = \$500,000$
Total hours = $400 \times 20 = 8,000$
Direct-cost rate per unit = $\$500,000/8,000 = \62.50 per hour

b. Indirect-cost rate per unit = $\$200,000/8,000 = \25.00 per hour

Diff: 2

Objective: 8

AACSB: Analytical skills