

# CHAPTER 9

## LONG-LIVED ASSETS

### CHAPTER STUDY OBJECTIVES

1. **Calculate the cost of property, plant, and equipment.** The cost of property, plant, and equipment includes all costs that are necessary to acquire the asset and make it ready for its intended use. All costs that benefit future periods (that is, capital expenditures) are included in the cost of the asset. When applicable, cost also includes asset retirement costs. When multiple assets are purchased in one transaction, or when an asset has significant components, the cost is allocated to each individual asset or component using their relative fair values.

2. **Apply depreciation methods to property, plant, and equipment.** After acquisition, assets are accounted for using the cost model or the revaluation model. Depreciation is recorded and assets are carried at cost less accumulated depreciation. Depreciation is the allocation of the cost of a long-lived asset to expense over its useful life (its service life) in a rational and systematic way. Depreciation is not a process of valuation and it does not result in an accumulation of cash. There are three commonly used depreciation methods:

<u>Method</u>	<u>Effect on Annual Depreciation</u>	<u>Calculation</u>
Straight-line	Constant amount	$(\text{Cost} - \text{residual value}) \div \text{estimated useful life (in years)}$
Diminishing-balance	Diminishing amount	Carrying amount at beginning of year $\times$ diminishing-balance rate
Units-of-production	Varying amount	$(\text{Cost} - \text{residual value}) \div \text{total estimated units-of-production} \times \text{actual activity during the year}$

Each method results in the same amount of depreciation over the asset's useful life. Depreciation expense for income tax purposes is called capital cost allowance (CCA).

3. **Explain the factors that cause changes in periodic depreciation and calculate revised depreciation for property, plant, and equipment.** A revision to depreciation will be required if there are (a) capital expenditures during the asset's useful life; (b) impairments in the asset's fair value; (c) changes in the asset's fair value when using the revaluation model; and/or (d) changes in the appropriate depreciation method, estimated useful life, or residual value. An impairment loss must be recorded if the recoverable amount is less than the carrying amount. Revisions of periodic depreciation are made in present and future periods, not retroactively. The new annual depreciation is determined by using the depreciable amount (carrying amount less the revised residual value), and the remaining useful life, at the time of the revision.

**4. Demonstrate how to account for property, plant, and equipment disposals.** The accounting for the disposal of a piece of property, plant, or equipment through retirement or sale is as follows:

- (a) Update any unrecorded depreciation for partial periods since depreciation was last recorded.
- (b) Calculate the carrying amount (cost – accumulated depreciation).
- (c) Calculate any gain (proceeds > carrying amount) or loss (proceeds < carrying amount) on disposal.
- (d) Remove the asset and accumulated depreciation accounts at the date of disposal. Record the proceeds received and the gain or loss, if any.

An exchange of assets is recorded as the purchase of a new asset and the sale of an old asset. The new asset is recorded at the fair value of the asset given up plus any cash paid (or less any cash received). The fair value of the asset given up is compared with its carrying amount to calculate the gain or loss. If the fair value of the new asset or the asset given up cannot be determined, the new long-lived asset is recorded at the carrying amount of the old asset that was given up, plus any cash paid (or less any cash received).

**5. Record natural resource transactions and calculate depletion.** The units-of-production method of depreciation is generally used for natural resources. The depreciable amount per unit is calculated by dividing the total depreciable amount by the number of units estimated to be in the resource. The depreciable amount per unit is multiplied by the number of units that have been extracted to determine the annual depreciation. The depreciation and any other costs to extract the resource are recorded as inventory until the resource is sold. At that time, the costs are transferred to cost of resource sold on the income statement. Revisions to depreciation will be required for capital expenditures during the asset's useful life, for impairments, and for changes in the total estimated units of the resource.

**6. Identify the basic accounting issues for intangible assets and goodwill.** The accounting for tangible and intangible assets is much the same. Intangible assets are reported at cost, which includes all expenditures necessary to prepare the asset for its intended use. An intangible asset with a finite life is amortized over the shorter of its useful life and legal life, usually on a straight-line basis. The extent of the annual impairment tests depends on whether IFRS or ASPE is followed and whether the intangible asset had a finite or indefinite life. Intangible assets with indefinite lives and goodwill are not amortized and are tested at least annually for impairment. Impairment losses on goodwill are never reversed under both IFRS and ASPE.

**7. Illustrate the reporting and analysis of long-lived assets.** It is common for property, plant, and equipment, and natural resources to be combined in financial statements under the heading "property, plant, and equipment." Intangible assets with finite and indefinite lives are sometimes combined under the heading "intangible assets" or are listed separately. Goodwill must be presented separately. Either on the balance sheet or in the notes, the cost of the major classes of long-lived assets is presented. Accumulated depreciation (if the asset is depreciable) and carrying amount must be disclosed either in the balance sheet or in the notes. The depreciation and amortization methods and rates, as well as the annual depreciation expense, must also be indicated. The company's impairment policy and any impairment losses should be described and reported. Under IFRS, companies must include a reconciliation of the carrying amount at

the beginning and end of the period for each class of long-lived assets and state whether the cost or revaluation model is used.

The asset turnover ratio (net sales  $\div$  average total assets) is one measure that is used by companies to show how efficiently they are using their assets to generate sales revenue. A second ratio, return on assets (profit  $\div$  average total assets), calculates how profitable the company is in terms of using its assets to generate profit.

## TRUE-FALSE STATEMENTS

1. All long-lived assets must be depreciated for accounting purposes.

Answer: False

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

CPA: Financial Reporting

2. All long-lived assets which are included in property, plant, and equipment must be used in the operations of the business.

Answer: True

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

CPA: Financial Reporting

3. If long-lived assets are intended for sale, they are included in property, plant, and equipment.

Answer: False

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

CPA: Financial Reporting

4. If an item of property, plant, and equipment is recognized as an asset it is probable that the company will NOT receive economic benefits from the item.

Answer: False

Bloomcode: Knowledge

Difficulty: Hard

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

CPA: Financial Reporting

5. Any non-refundable taxes incurred on the acquisition of an asset would be expensed at the

time of acquisition.

Answer: False

Bloomcode: Knowledge

Difficulty: Medium

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

CPA: Financial Reporting

6. The expenditures necessary to bring the asset to the location and condition necessary to make it ready for its intended use would be included in the cost of the asset.

Answer: True

Bloomcode: Knowledge

Difficulty: Medium

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

CPA: Financial Reporting

7. Costs that benefit future periods are included in a long-lived asset account, and are called operating expenses.

Answer: False

Bloomcode: Comprehension

Difficulty: Medium

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

CPA: Financial Reporting

8. If insurance is incurred transporting the asset to its final position, this insurance will be added to the cost of the asset.

Answer: True

Bloomcode: Knowledge

Difficulty: Medium

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

CPA: Financial Reporting

9. Subsequent to the acquisition of an asset, insurance costs would be added to the cost of the asset.

Answer: False

Bloomcode: Comprehension

Difficulty: Medium

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

CPA: Financial Reporting

10. If paid by the purchaser, freight charges and insurance during transit are included in the cost of equipment.

Answer: True

Bloomcode: Comprehension

Difficulty: Medium

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

CPA: Financial Reporting

11. Architect's fee for the plans for a new building would be included in the cost of the land improvements.

Answer: False

Bloomcode: Comprehension

Difficulty: Medium

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

CPA: Financial Reporting

12. A basket purchase of long-lived assets requires that the fair values be assigned based on the cost of each asset.

Answer: False

Bloomcode: Comprehension

Difficulty: Medium

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

CPA: Financial Reporting

13. The cost of land improvements is NOT depreciated because land improvements typically do not decline in value.

Answer: False

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

CPA: Financial Reporting

14. Under IFRS, companies have two models they can choose between to account for their property, plant, and equipment: the cost model or the amortization model.

Answer: True

Bloomcode: Knowledge

Difficulty: Medium

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

15. Most Canadian companies reporting under IFRS do NOT use the revaluation method when accounting for their long-lived assets.

Answer: False

Bloomcode: Knowledge

Difficulty: Medium

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

16. Land improvements decline in service potential with time.

Answer: True

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

17. Depreciation is the systematic allocation of the cost of a long-lived asset, such as property, plant, and equipment, over the asset's physical life.

Answer: True

Bloomcode: Knowledge

Difficulty: Medium

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

18. An asset's cost is allocated to expense over the asset's useful life because the asset is used to help generate revenue over that period of time.

Answer: True

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

19. Assets are depreciated over their useful lives even if the use of the asset is NOT directly related to earning profit.

Answer: True

Bloomcode: Knowledge

Difficulty: Medium

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

20. Depreciation is a process of cost allocation.

Answer: True

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

21. Residual value is NOT depreciated, since the amount is expected to be recovered at the end of the asset's useful life.

Answer: True

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

22. Recording depreciation on long-lived assets affects the balance sheet and the income statement.

Answer: True

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

23. The units-of-production method of depreciation will result in the highest cash flow for the company.

Answer: False

Bloomcode: Knowledge

Difficulty: Medium

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

24. Subject to acquisition, all costs that relate to that asset are classified as operating expenses.

Answer: False

Bloomcode: Knowledge

Difficulty: Medium

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

25. The Accumulated Depreciation account represents a cash fund available to replace long-lived assets.

Answer: False

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

26. In calculating depreciation, both the long-lived asset's cost and useful life are based on estimates.

Answer: False

Bloomcode: Comprehension

Difficulty: Easy

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

27. Under the double diminishing-balance method, the depreciation rate used each year remains constant.

Answer: True

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

28. Using the units-of-production method of depreciating factory equipment will generally result in more depreciation expense being recorded over the life of the asset than if the straight-line method had been used.

Answer: False

Bloomcode: Comprehension

Difficulty: Medium

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

29. Straight-line depreciation will result in a higher profit than the double diminishing-balance method in the early years of an asset's life.

Answer: True

Bloomcode: Comprehension

Difficulty: Easy

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

30. The Canada Revenue Agency does NOT require the taxpayer to use the same depreciation method on the tax return that is used in preparing financial statements.

Answer: True

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

31. A company using the diminishing-balance method of depreciation will have higher profit in the early years of the asset.

Answer: False

Bloomcode: Comprehension

Difficulty: Medium

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

32. The amount of an asset's residual value does NOT affect the calculation of depreciation in the units-of-production method.

Answer: False

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

33. In the straight-line method, the higher the residual value the greater the profit.

Answer: True

Bloomcode: Comprehension

Difficulty: Medium

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

34. The diminishing-balance method will yield a higher cost of goods sold.

Answer: False

Bloomcode: Knowledge

Difficulty: Hard

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

35. In the diminishing-balance method, the rate of depreciation decreases each year.

Answer: False

Bloomcode: Knowledge

Difficulty: Medium

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

36. In the diminishing-balance method, the depreciation expense will decrease each year.

Answer: True

Bloomcode: Knowledge

Difficulty: Medium

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

37. In the straight-line method of depreciation, the rate of depreciation remains constant over time.

Answer: True

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

38. Once an asset is fully depreciated, no additional depreciation can be taken even though the asset is still being used by the business.

Answer: True

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

39. The units-of-production method is ideal for equipment whose production can be measured in units of output.

Answer: True

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

40. CRA does NOT allow taxpayers to estimate the useful lives of assets or depreciation rates.

Answer: True

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

41. Under CRA, depreciation expense is NOT optional in calculating profit.

Answer: True

Bloomcode: Knowledge

Difficulty: Medium

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

42. The carrying amount of a long-lived asset is the amount originally paid for the asset less anticipated residual value.

Answer: False

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

43. Ordinary repairs are costs to maintain the asset's operating efficiency and expected productive life.

Answer: True

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Explain the factors that cause changes in periodic depreciation and calculate revised depreciation for property, plant, and equipment.

Section Reference: Revising Periodic Depreciation

CPA: Financial Reporting

44. A change in the estimated residual value of a long-lived asset requires a restatement of prior years' depreciation.

Answer: False

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Explain the factors that cause changes in periodic depreciation and calculate revised depreciation for property, plant, and equipment.

Section Reference: Revising Periodic Depreciation

CPA: Financial Reporting

45. Additions and improvements to a long-lived asset that increase the asset's operating efficiency, productive capacity, or expected useful life are generally expensed in the period incurred.

Answer: False

Bloomcode: Knowledge

Difficulty: Medium

Learning Objective: Explain the factors that cause changes in periodic depreciation and calculate revised depreciation for property, plant, and equipment.

Section Reference: Revising Periodic Depreciation

CPA: Financial Reporting

46. Additions and improvements are costs that are incurred to maintain the asset's operating efficiency, productive capacity, or expected useful life.

Answer: False

Bloomcode: Comprehension

Difficulty: Hard

Learning Objective: Explain the factors that cause changes in periodic depreciation and calculate revised depreciation for property, plant, and equipment.

Section Reference: Revising Periodic Depreciation

CPA: Financial Reporting

47. An impairment loss is the amount by which the asset's carrying amount exceeds its recoverable amount.

Answer: True

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Explain the factors that cause changes in periodic depreciation and calculate revised depreciation for property, plant, and equipment.

Section Reference: Revising Periodic Depreciation

CPA: Financial Reporting

48. An impairment loss can only occur in long-lived assets with a finite life.

Answer: False

Bloomcode: Knowledge

Difficulty: Medium

Learning Objective: Explain the factors that cause changes in periodic depreciation and calculate revised depreciation for property, plant, and equipment.

Section Reference: Revising Periodic Depreciation

CPA: Financial Reporting

49. IFRS allow the reversal of a previously recorded impairment loss.

Answer: True

Bloomcode: Knowledge

Difficulty: Medium

Learning Objective: Explain the factors that cause changes in periodic depreciation and calculate revised depreciation for property, plant, and equipment.

Section Reference: Revising Periodic Depreciation

CPA: Financial Reporting

50. Under IFRS, at each year end, the company must determine whether or not an impairment loss still exists by measuring the asset's recoverable amount.

Answer: True

Bloomcode: Knowledge

Difficulty: Hard

Learning Objective: Explain the factors that cause changes in periodic depreciation and calculate revised depreciation for property, plant, and equipment.

Section Reference: Revising Periodic Depreciation

CPA: Financial Reporting

51. Under the revaluation model, the carrying amount of property, plant, and equipment is its fair value plus any subsequent accumulated depreciation less any subsequent impairment losses.

Answer: False

Bloomcode: Knowledge

Difficulty: Hard

Learning Objective: Explain the factors that cause changes in periodic depreciation and calculate revised depreciation for property, plant, and equipment.

Section Reference: Revising Periodic Depreciation

CPA: Financial Reporting

52. A loss on disposal of a long-lived asset as a result of a sale or a retirement is calculated in the same way.

Answer: True

Bloomcode: Comprehension

Difficulty: Medium

Learning Objective: Demonstrate how to account for property, plant, and equipment disposals.

Section Reference: Disposals of Property, Plant, and Equipment

CPA: Financial Reporting

53. A long-lived asset must be fully depreciated before it can be removed from the books.

Answer: False

Bloomcode: Comprehension

Difficulty: Hard

Learning Objective: Demonstrate how to account for property, plant, and equipment disposals.

Section Reference: Disposals of Property, Plant, and Equipment

CPA: Financial Reporting

54. A loss on disposal of long-lived assets can only occur if the cash proceeds received from the asset sale are less than the asset's carrying amount.

Answer: True

Bloomcode: Comprehension

Difficulty: Medium

Learning Objective: Demonstrate how to account for property, plant, and equipment disposals.

Section Reference: Disposals of Property, Plant, and Equipment

CPA: Financial Reporting

55. The first step in recording a disposal of a long-lived asset is to update that asset's depreciation.

Answer: True

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Demonstrate how to account for property, plant, and equipment disposals.

Section Reference: Disposals of Property, Plant, and Equipment

CPA: Financial Reporting

56. In a disposal of an asset, if the carrying amount of the asset exceeds the proceeds received, profit will increase.

Answer: False

Bloomcode: Comprehension

Difficulty: Medium

Learning Objective: Demonstrate how to account for property, plant, and equipment disposals.

Section Reference: Disposals of Property, Plant, and Equipment

CPA: Financial Reporting

57. When an asset is retired, there are no proceeds received.

Answer: True

Bloomcode: Comprehension

Difficulty: Medium

Learning Objective: Demonstrate how to account for property, plant, and equipment disposals.

Section Reference: Disposals of Property, Plant, and Equipment

CPA: Financial Reporting

58. In a retirement of an asset, if the carrying amount of the asset is greater than \$1, profit will increase.

Answer: False

Bloomcode: Comprehension

Difficulty: Medium

Learning Objective: Demonstrate how to account for property, plant, and equipment disposals.

Section Reference: Disposals of Property, Plant, and Equipment

CPA: Financial Reporting

59. A higher trade-in value will increase the profit of the company disposing of an asset.

Answer: False

Bloomcode: Comprehension

Difficulty: Medium

Learning Objective: Demonstrate how to account for property, plant, and equipment disposals.

Section Reference: Disposals of Property, Plant, and Equipment

CPA: Financial Reporting

60. The cost of natural resources is NOT allocated to expense because the natural resources are replaceable only by an act of nature.

Answer: False

Bloomcode: Comprehension

Difficulty: Hard

Learning Objective: Record natural resource transactions and calculate depletion.

Section Reference: Natural Resources

CPA: Financial Reporting

61. Conceptually, the cost allocation procedure for natural resources parallels that of property, plant, and equipment.

Answer: True

Bloomcode: Comprehension

Difficulty: Medium

Learning Objective: Record natural resource transactions and calculate depletion.

Section Reference: Natural Resources

CPA: Financial Reporting

62. Natural resources are often called wasting assets because it is difficult to use the assets in an efficient manner.

Answer: False

Bloomcode: Comprehension

Difficulty: Medium

Learning Objective: Record natural resource transactions and calculate depletion.

Section Reference: Natural Resources

CPA: Financial Reporting

63. Accumulated depreciation is only recognized on natural resources that have been extracted and sold during the period.

Answer: False

Bloomcode: Knowledge

Difficulty: Medium

Learning Objective: Record natural resource transactions and calculate depletion.

Section Reference: Natural Resources

CPA: Financial Reporting

64. The diminishing-balance method is the most common method of depreciation for natural resources.

Answer: False

Bloomcode: Comprehension

Difficulty: Easy

Learning Objective: Record natural resource transactions and calculate depletion.

Section Reference: Natural Resources

CPA: Financial Reporting

65. Natural resources do NOT have to be tested for impairment annually.

Answer: False

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Record natural resource transactions and calculate depletion.

Section Reference: Natural Resources

CPA: Financial Reporting

66. Intangible assets have unlimited life because they have no physical substance.

Answer: False

Bloomcode: Comprehension

Difficulty: Medium

Learning Objective: Identify the basic accounting issues for intangible assets and goodwill.

Section Reference: Intangible Assets and Goodwill

CPA: Financial Reporting

67. The diminishing-balance method of amortization is the most common method of amortization for intangibles.

Answer: False

Bloomcode: Knowledge

Difficulty: Medium

Learning Objective: Identify the basic accounting issues for intangible assets and goodwill.

Section Reference: Intangible Assets and Goodwill

CPA: Financial Reporting

68. The amortizable amount of an intangible should be allocated over the shorter of the estimated useful life and legal life.

Answer: True

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Identify the basic accounting issues for intangible assets and goodwill.

Section Reference: Intangible Assets and Goodwill

CPA: Financial Reporting

69. If an intangible with an indefinite life is disposed of, there is no effect on profit.

Answer: False

Bloomcode: Knowledge

Difficulty: Medium

Learning Objective: Identify the basic accounting issues for intangible assets and goodwill.

Section Reference: Intangible Assets and Goodwill

CPA: Financial Reporting

70. A franchise is a contractual arrangement under which the franchisor grants the franchisee the right to sell certain products and/or to provide specific services.

Answer: True

Bloomcode: Knowledge

Difficulty: Medium

Learning Objective: Identify the basic accounting issues for intangible assets and goodwill.

Section Reference: Intangible Assets and Goodwill

CPA: Financial Reporting

71. Goodwill CANNOT be sold individually as it is part of the business as a whole.

Answer: True

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Identify the basic accounting issues for intangible assets and goodwill.

Section Reference: Intangible Assets and Goodwill

CPA: Financial Reporting

72. Goodwill has an indefinite life.

Answer: True

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Identify the basic accounting issues for intangible assets and goodwill.

Section Reference: Intangible Assets and Goodwill

CPA: Financial Reporting

73. Goodwill should be amortized on the lesser of useful life or 20 years.

Answer: False

Bloomcode: Comprehension

Difficulty: Easy

Learning Objective: Identify the basic accounting issues for intangible assets and goodwill.

Section Reference: Intangible Assets and Goodwill

CPA: Financial Reporting

74. Impairment losses on goodwill are NEVER reversed.

Answer: True

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Identify the basic accounting issues for intangible assets and goodwill.

Section Reference: Intangible Assets and Goodwill

CPA: Financial Reporting

75. IFRS does allow for reversals of impairment losses on both finite-life and other indefinite-life intangible assets if their value increases in the future.

Answer: True

Bloomcode: Knowledge

Difficulty: Medium

Learning Objective: Identify the basic accounting issues for intangible assets and goodwill.

Section Reference: Intangible Assets and Goodwill

CPA: Financial Reporting

76. It is NOT necessary to disclose the amount of accumulated amortization in the financial statements.

Answer: False

Bloomcode: Comprehension

Difficulty: Medium

Learning Objective: Illustrate the reporting and analysis of long-lived assets.

Section Reference: Statement Presentation and Analysis

CPA: Financial Reporting

77. The return on assets is calculated by dividing net income by total assets.

Answer: False

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Illustrate the reporting and analysis of long-lived assets.

Section Reference: Statement Presentation and Analysis

CPA: Financial Reporting

78. The asset turnover ratio indicates how efficiently a company uses its assets to generate sales.

Answer: True

Bloomcode: Comprehension

Difficulty: Medium

Learning Objective: Illustrate the reporting and analysis of long-lived assets.

Section Reference: Statement Presentation and Analysis

CPA: Financial Reporting

79. Companies must report goodwill separately from property, plant, and equipment, and intangible assets.

Answer: True

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Illustrate the reporting and analysis of long-lived assets.

Section Reference: Statement Presentation and Analysis

CPA: Financial Reporting

**MULTIPLE CHOICE QUESTIONS**

80. Which of the following would NOT be considered an addition to the capital cost of an asset?

- a) HST paid on the asset
- b) insurance paid when the asset was in transit from the supplier
- c) installation fee when asset is delivered
- d) freight costs paid by the purchaser

Answer: a

Bloomcode: Knowledge

Difficulty: Medium

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

CPA: Financial Reporting

81. All of the following are examples of property, plant, and equipment EXCEPT

- a) equipment.
- b) timber stand.
- c) land.
- d) building.

Answer: b

Bloomcode: Knowledge

Difficulty: Medium

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

CPA: Financial Reporting

82. An example of operating costs of a long-lived asset would NOT include the following:

- a) insurance costs paid after the asset is being used in operations.
- b) maintenance costs.
- c) repair costs.
- d) insurance costs paid before the asset is being used in operations.

Answer: d

Bloomcode: Knowledge

Difficulty: Medium

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

CPA: Financial Reporting

83. A company purchased land for \$70,000 cash. \$7,000 was spent demolishing an old building on the land before construction of a new building could start. The cost of land would be

recorded at

- a) \$77,000.
- b) \$70,000.
- c) \$63,000.
- d) \$7,000.

Answer: a

Bloomcode: Application

Difficulty: Easy

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

CPA: Financial Reporting

84. Which one of the following items is NOT considered a part of the cost of a truck purchased for business use?

- a) insurance during transit
- b) truck licence
- c) freight charges
- d) cost of lettering on side of truck

Answer: b

Bloomcode: Knowledge

Difficulty: Medium

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

CPA: Financial Reporting

85. Which of the following assets does NOT decline in service potential over the course of its useful life?

- a) equipment
- b) furnishings
- c) land
- d) fixtures

Answer: c

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

CPA: Financial Reporting

86. The four subdivisions for property, plant, and equipment are normally

- a) land, land improvements, buildings, and equipment.
- b) intangibles, land, buildings, and equipment.
- c) furnishings and fixtures, land, buildings, and equipment.

d) property, plant, equipment, and land.

Answer: a

Bloomcode: Knowledge

Difficulty: Medium

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

CPA: Financial Reporting

87. The cost of land does NOT include

- a) costs to clear the land.
- b) annual property taxes.
- c) accrued property taxes assumed by the purchaser.
- d) legal fees.

Answer: b

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

CPA: Financial Reporting

88. Merry Clinic purchases land for \$80,000 cash. The clinic assumes \$2,000 in property taxes due on the land. The legal fees totalled \$1,000. The clinic has the land graded for \$2,200. What amount does Merry Clinic record as the cost for the land?

- a) \$82,000
- b) \$80,000
- c) \$85,200
- d) \$84,200

Answer: c

Bloomcode: Application

Difficulty: Medium

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

CPA: Financial Reporting

89. Juang Company acquires land for \$56,000 cash. Additional costs are as follows:

Removal of shed	\$ 1,800
Filling and grading	1,500
Paving of parking lot	10,000
Closing costs	690

Juang will record the acquisition cost of the land as

- a) \$56,000.
- b) \$56,690.

- c) \$69,990.
- d) \$59,990.

Answer: d

Bloomcode: Application

Difficulty: Medium

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

CPA: Financial Reporting

90. Newman Hospital installs a new parking lot. The paving cost \$30,000 and the lights to illuminate the new parking area cost \$12,000. Which of the following statements is true with respect to these additions?

- a) \$30,000 should be debited to the Land account.
- b) \$12,000 should be debited to Land Improvements.
- c) \$42,000 should be debited to the Land account.
- d) \$42,000 should be debited to Land Improvements.

Answer: d

Bloomcode: Application

Difficulty: Medium

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

CPA: Financial Reporting

91. General Paint Company is building a new plant that will take three years to construct. The construction will be financed in part by funds borrowed during the construction period. There are significant architect fees, excavation fees, and building permit fees. Which of the following statements is true?

- a) Excavation fees are capitalized but building permit fees are not.
- b) Architect fees are capitalized but building permit fees are not.
- c) Interest during the construction is capitalized as part of the cost of the building.
- d) The capitalized cost is equal to the contract price to build the plant less any interest on borrowed funds.

Answer: c

Bloomcode: Comprehension

Difficulty: Medium

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

CPA: Financial Reporting

92. A company purchases a remote site building for computer operations. The building will be suitable for operations after some expenditures. The wiring must be replaced to computer specifications. The roof is leaky and must be replaced. All rooms must be repainted and re-

carpeted and there will also be some plumbing work done. Which of the following statements is true?

- a) The cost of the building will not include the repainting and re-carpeting costs.
- b) The cost of the building will include the cost of replacing the roof.
- c) The cost of the building is the purchase price of the building, while the additional expenditures are all capitalized as building improvements.
- d) The wiring is part of the computer costs, not the building cost.

Answer: b

Bloomcode: Comprehension

Difficulty: Medium

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

CPA: Financial Reporting

93. The Fizzard Company purchases a new delivery truck for \$45,000. The logo of the company is painted on the side of the truck for \$600. The truck licence is \$60. The truck undergoes safety testing for \$110. What does Fizzard record as the cost of the new truck?

- a) \$45,770
- b) \$45,060
- c) \$45,000
- d) \$45,710

Answer: d

Bloomcode: Application

Difficulty: Medium

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

CPA: Financial Reporting

94. Interest may be included in the acquisition cost of property, plant, and equipment

- a) during the construction period of a self-constructed asset.
- b) if the asset is purchased on credit.
- c) if the asset acquisition is financed by a long-term note payable.
- d) if it is a part of a lump-sum purchase.

Answer: a

Bloomcode: Knowledge

Difficulty: Medium

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

CPA: Financial Reporting

95. Expenditures that maintain the operating efficiency and expected productive life of a long-lived asset are generally

- a) expensed when incurred.
- b) capitalized as a part of the cost of the asset.
- c) debited to the accumulated depreciation account.
- d) not recorded until they become material in amount.

Answer: a

Bloomcode: Comprehension

Difficulty: Medium

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

CPA: Financial Reporting

96. Which of the following is NOT true of ordinary repairs?

- a) They primarily benefit the current accounting period.
- b) They can be referred to as operating expenditures.
- c) They maintain the expected productive life of the asset.
- d) They increase the productive capacity of the asset.

Answer: d

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

CPA: Financial Reporting

97. The replacement of the bumper of a company's delivery truck would be classified as a(n)

- a) non-monetary exchange.
- b) addition.
- c) renovation.
- d) ordinary repair.

Answer: d

Bloomcode: Comprehension

Difficulty: Easy

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

CPA: Financial Reporting

98. Additions and improvements

- a) occur frequently during the ownership of a long-lived asset.
- b) normally involve immaterial expenditures.
- c) increase the carrying amount of long-lived assets when incurred.
- d) typically only benefit the current accounting period.

Answer: c

Bloomcode: Comprehension

Difficulty: Easy

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

CPA: Financial Reporting

99. A company purchased property for \$300,000. The property included an acre of land valued at \$50,000, a building valued at \$150,000, and equipment valued at \$125,000. The land will be recorded at a cost of

- a) \$45,000.
- b) \$48,234.
- c) \$46,154.
- d) \$50,000.

Answer: c

Bloomcode: Application

Difficulty: Medium

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

CPA: Financial Reporting

100. A company purchased property for \$300,000. The property included an acre of land valued at \$50,000, a building valued at \$150,000, and equipment valued at \$125,000. The building will be recorded at a cost of

- a) \$150,000.
- b) \$140,000.
- c) \$135,000.
- d) \$138,461.

Answer: d

Bloomcode: Application

Difficulty: Medium

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

CPA: Financial Reporting

101. A company purchased property for \$300,000. The property included an acre of land valued at \$50,000, a building valued at \$150,000, and equipment valued at \$125,000. The equipment will be recorded at a cost of

- a) \$125,000.
- b) \$120,000.
- c) \$118,723.
- d) \$115,384.

Answer: d

Bloomcode: Application

Difficulty: Medium

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

CPA: Financial Reporting

102. A company purchased property for \$300,000. The property included an acre of land valued at \$50,000, a building valued at \$150,000, and equipment valued at \$125,000. The above transaction may be referred to as a

- a) fair value purchase.
- b) long-lived asset purchase.
- c) property purchase.
- d) basket purchase.

Answer: d

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

CPA: Financial Reporting

103. Which of the following is NOT a characteristic of property, plant, and equipment?

- a) physical substance
- b) used in operations of business
- c) not intended for sale
- d) held for sale

Answer: d

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

CPA: Financial Reporting

104. The cost of property, plant, and equipment includes all of the following items EXCEPT

- a) annual maintenance.
- b) purchase price.
- c) installation fee.
- d) freight charges.

Answer: a

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment  
CPA: Financial Reporting

105. Which of the following items should NOT be capitalized?

- a) insurance paid while item is in transit
- b) land surveying fees
- c) building permits
- d) truck license

Answer: d

Bloomcode: Knowledge

Difficulty: Medium

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

CPA: Financial Reporting

106. Which of the following items should NOT be included in the cost of land?

- a) removal of old building
- b) legal fees
- c) clearing and draining land
- d) structural additions to land

Answer: d

Bloomcode: Knowledge

Difficulty: Medium

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

CPA: Financial Reporting

107. Which of the following items qualify as land improvements?

- a) underground sprinkler
- b) building
- c) surveying fees
- d) grading and clearing land

Answer: a

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

CPA: Financial Reporting

108. Which of the following items is considered an operating expenditure?

- a) testing new equipment

- b) installing equipment
- c) interest on loan to construct a building
- d) insurance on equipment in use

Answer: d

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

CPA: Financial Reporting

109. Yani Company purchased land for \$115,000 with the intentions of constructing a new operating facility. The land purchase included a dilapidated building that was removed at a cost of \$16,000. The only salvage value from this old building was some materials which were sold for proceeds of \$4,000. Yani had paid surveying costs of \$1,800 and legal fees related to land transfer of \$6,700. The new building was quickly constructed at a total cost of \$422,000. Permits on the construction of this new facility totalled \$18,000. Insurance premiums of \$9,200 are paid annually. The production manager is currently on-site facilitating the production startup. This manager is an annual salary of \$85,000. What capital cost is assigned to the land?

- a) \$135,500
- b) \$123,500
- c) \$115,000
- d) \$127,000

Answer: a

Bloomcode: Application

Difficulty: Hard

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

CPA: Financial Reporting

110. Yani Company purchased land for \$115,000 with the intentions of constructing a new operating facility. The land purchase included a dilapidated building that was removed at a cost of \$16,000. The only salvage value from this old building was some materials which were sold for proceeds of \$4,000. Yani had paid surveying costs of \$1,800 and legal fees related to land transfer of \$6,700. The new building was quickly constructed at a total cost of \$422,000. Permits on the construction of this new facility totalled \$18,000. Insurance premiums of \$9,200 are paid annually. The production manager is currently on-site facilitating the production startup. This manager is an annual salary of \$85,000. What capital cost is assigned to the new building?

- a) \$440,000
- b) \$449,200
- c) \$452,000
- d) \$534,200

Answer: a

Bloomcode: Application

Difficulty: Hard

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

CPA: Financial Reporting

111. Which is NOT a method of depreciation?

- a) straight-line
- b) diminishing-balance
- c) perpetual-identification
- d) units-of-production

Answer: c

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

112. The balance in the accumulated depreciation account represents the

- a) cash fund to be used to replace long-lived assets.
- b) amount to be deducted from the cost of the long-lived asset to arrive at its fair value.
- c) amount charged to expense in the current period.
- d) amount charged to expense since the acquisition of the long-lived asset.

Answer: d

Bloomcode: Knowledge

Difficulty: Medium

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

113. Which one of the following items is NOT a consideration when recording periodic depreciation expense on long-lived assets?

- a) residual value
- b) estimated useful life
- c) cash needed to replace the long-lived asset
- d) cost

Answer: c

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

114. Depreciation is the process of allocating the cost of a long-lived asset (such as property, plant, and equipment) over its service life in a(n)

- a) equal and equitable manner.
- b) accelerated and accurate manner.
- c) systematic and rational manner.
- d) conservative market-based manner.

Answer: c

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

115. The carrying amount of an asset is equal to the

- a) asset's fair value less its cost.
- b) asset's cost less depreciation expense.
- c) replacement cost of the asset.
- d) asset's cost less accumulated depreciation.

Answer: d

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

116. When an asset is fully depreciated, the carrying amount of the asset will be

- a) nil.
- b) equal to the trade-in value.
- c) equal to the residual.
- d) equal to the fair value.

Answer: c

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

117. Depreciation is a process of

- a) asset devaluation.
- b) cost accumulation.
- c) cost allocation.

d) asset valuation.

Answer: c

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

118. In calculating depreciation, residual value is

a) the fair value of a long-lived asset on the date of acquisition.

b) subtracted from accumulated depreciation to determine the long-lived asset's depreciable cost.

c) an estimate of what a long-lived asset could be sold for at the end of its useful life.

d) the amount that a similar replacement asset is expected to cost at the end of the old asset's useful life.

Answer: c

Bloomcode: Comprehension

Difficulty: Medium

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

119. When estimating the useful life of an asset, accountants do NOT consider

a) the cost to replace the asset at the end of its useful life.

b) obsolescence factors.

c) expected repairs and maintenance.

d) the intended use of the asset.

Answer: a

Bloomcode: Comprehension

Difficulty: Medium

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

120. Equipment was purchased for \$15,000. Freight charges amounted to \$700, and there was a cost of \$2,000 for building a foundation and installing the equipment. It is estimated that the equipment will have a \$3,000 residual value at the end of its 5-year useful life. Depreciation expense each year using the straight-line method will be

a) \$3,540.

b) \$2,940.

c) \$2,460.

d) \$2,400.

Answer: b

Bloomcode: Application

Difficulty: Medium

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

121. A truck was purchased for \$15,000, and it was estimated to have a \$3,000 residual value at the end of its useful life. Monthly depreciation expense of \$250 was recorded using the straight-line method. The annual depreciation rate is

- a) 20%.
- b) 2%.
- c) 8%.
- d) 25%.

Answer: d

Bloomcode: Application

Difficulty: Hard

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

122. A company purchased factory equipment on June 1, 2017 for \$48,000. It is estimated that the equipment will have a \$6,000 residual value at the end of its 10-year useful life. Using the straight-line method of depreciation, the amount to be recorded as depreciation expense at December 31, 2017 is

- a) \$4,800.
- b) \$4,200.
- c) \$2,450.
- d) \$6,000.

Answer: c

Bloomcode: Application

Difficulty: Hard

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

123. A company purchased office equipment for \$10,000 and estimated a residual value of \$2,000 at the end of its 4-year useful life. The constant percentage to be applied against carrying amount each year if the double diminishing-balance method is used is

- a) 20%.
- b) 25%.
- c) 50%.

d) 4%.

Answer: c

Bloomcode: Application

Difficulty: Medium

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

124. The diminishing-balance method of depreciation produces a(n)

- a) decreasing depreciation expense each period.
- b) increasing depreciation expense each period.
- c) decreasing percentage rate each period.
- d) constant amount of depreciation expense each period.

Answer: a

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

125. A company purchased a delivery truck for \$60,000. It is estimated that the truck will have a \$10,000 residual value at the end of its estimated 5-year useful life. If the company uses the double diminishing-balance method of depreciation, the amount of annual depreciation recorded for the second year after purchase would be

- a) \$9,600.
- b) \$24,000.
- c) \$14,400.
- d) \$12,000.

Answer: c

Bloomcode: Application

Difficulty: Hard

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

126. A long-lived asset cost \$24,000 and is estimated to have a \$3,000 residual value at the end of its 8-year useful life. The annual depreciation expense recorded for the third year using the double diminishing-balance method would be

- a) \$2,010.
- b) \$3,375.
- c) \$2,953.
- d) \$2,297.

Answer: b

Bloomcode: Application

Difficulty: Hard

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

127. A factory machine was purchased for \$20,000 on March 1, 2017. It was estimated that it would have a \$4,000 residual value at the end of its 5-year useful life. It was also estimated that the machine would be run 25,000 hours in the 5 years. If the actual number of machine hours run in 2017 was 4,000 hours and the company uses the units-of-production method of depreciation, the amount of depreciation expense for 2017 would be

- a) \$2,133.
- b) \$2,560.
- c) \$3,200.
- d) \$4,000.

Answer: b

Bloomcode: Application

Difficulty: Medium

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

128. Which of the following methods of calculating depreciation uses measures other than time?

- a) straight-line
- b) diminishing-balance
- c) units-of-production
- d) none of these

Answer: c

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

129. Under International Financial Reporting Standards, the models which companies can choose to account for their long-lived assets are

- a) cost model and units-of-production model.
- b) units-of-production model and diminishing-balance model.
- c) revaluation model and straight-line model.
- d) cost model and revaluation model.

Answer: d

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

130. Management should select the depreciation method that

- a) is easiest to apply.
- b) best measures the long-lived asset's fair value over its useful life.
- c) best measures the long-lived asset's contribution to revenue over its useful life.
- d) has been used most often in the past by the company.

Answer: c

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

131. The depreciation method that applies a constant percentage to the carrying amount of an asset in calculating depreciation is

- a) straight-line.
- b) units-of-production.
- c) diminishing-balance.
- d) perpetual-fair value.

Answer: c

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

132. On October 1, 2017, Marshwinds Wind Turbine Company places a new asset into service. The cost of the asset is \$8,000 with an estimated 5-year life and \$2,000 residual value at the end of its useful life. What is the depreciation expense for 2017 if Marshwinds Wind Turbine Company uses the straight-line method of depreciation?

- a) \$300
- b) \$1,600
- c) \$400
- d) \$800

Answer: a

Bloomcode: Application

Difficulty: Hard

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

133. On October 1, 2017, Marshwinds Wind Turbine Company places a new asset into service. The cost of the asset is \$8,000 with an estimated 5-year life and \$2,000 residual value at the end of its useful life. What is the carrying amount of the long-lived asset on the December 31, 2017, balance sheet assuming that Marshwinds Wind Turbine Company uses the double diminishing-balance method of depreciation?

- a) \$5,200
- b) \$6,000
- c) \$7,200
- d) \$7,600

Answer: c

Bloomcode: Application

Difficulty: Hard

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

134. Which depreciation method is most frequently used in businesses today?

- a) straight-line
- b) diminishing-balance
- c) units-of-production
- d) revaluation

Answer: a

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

135. Bay of Fundy Company uses the units-of-production method in calculating depreciation. A new piece of equipment is purchased for \$18,000 that will produce an estimated 100,000 units over its useful life. Estimated residual value at the end of its useful life is \$2,000. What is the depreciable cost per unit?

- a) \$1.60
- b) \$1.80
- c) \$0.16
- d) \$0.18

Answer: c

Bloomcode: Application

Difficulty: Easy

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

136. Units-of-production is an appropriate depreciation method to use when

- a) it is impossible to determine the productivity of the asset.
- b) the asset's use will be constant over its useful life.
- c) the productivity of the asset varies significantly from one period to another.
- d) the company is a manufacturing company.

Answer: c

Bloomcode: Comprehension

Difficulty: Easy

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

137. The calculation of depreciation using the diminishing-balance method

- a) ignores residual value in determining the amount to which a constant rate is applied.
- b) multiplies a constant percentage times the previous year's depreciation expense.
- c) yields an increasing depreciation expense each period.
- d) multiplies a diminishing percentage times a constant carrying amount.

Answer: a

Bloomcode: Comprehension

Difficulty: Medium

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

138. Dorchester Company purchased a new van for floral deliveries on July 1, 2017. The van cost \$20,000 with an estimated life of 5 years and \$5,000 residual value at the end of its useful life. The double diminishing-balance method of depreciation will be used. What is the depreciation expense for 2017?

- a) \$4,000
- b) \$3,000
- c) \$6,000
- d) \$8,000

Answer: a

Bloomcode: Application

Difficulty: Easy

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

139. Dorchester Company purchased a new van for floral deliveries on July 1, 2017. The van cost \$20,000 with an estimated life of 5 years and \$5,000 residual value at the end of its useful life. The double diminishing-balance method of depreciation will be used. What is the balance of the accumulated depreciation account at the end of 2018?

- a) \$4,800
- b) \$6,400
- c) \$10,400
- d) \$4,000

Answer: c

Bloomcode: Application

Difficulty: Medium

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

140. Rockport Company purchased equipment for \$30,000 on January 1, 2015, and will use the diminishing-balance method of depreciation. It is estimated that the equipment will have a 3-year life and a \$3,000 residual value at the end of its useful life. The amount of depreciation expense recognized in the year 2017 will be

- a) \$6,000.
- b) \$4,444.
- c) \$4,800.
- d) \$2,400.

Answer: b

Bloomcode: Application

Difficulty: Hard

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

141. A long-lived asset was purchased on January 1 for \$30,000 with an estimated residual value of \$6,000 at the end of its useful life. The current year's depreciation expense is \$3,000 calculated on the straight-line basis and the balance of the accumulated depreciation account at the end of the year is \$15,000. The remaining useful life of the asset is

- a) 10 years.
- b) 8 years.
- c) 5 years.
- d) 3 years.

Answer: d

Bloomcode: Application

Difficulty: Medium

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

142. The carrying amount of a long-lived asset is the difference between the

- a) replacement cost of the asset and its cost.
- b) cost of the asset and the amount of depreciation expense for the year.
- c) cost of the asset and the accumulated depreciation to date.
- d) proceeds received from the sale of the asset and its original cost.

Answer: c

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

143. Use of straight-line depreciation in comparison to the diminishing-balance method results in

- a) a greater amount of depreciation in the earlier years of an asset's useful life.
- b) a greater amount of depreciation in the later years of an asset's useful life.
- c) an equal amount of depreciation over an asset's total useful life.
- d) both b and c

Answer: d

Bloomcode: Knowledge

Difficulty: Medium

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

144. Use of the units-of-production method of depreciation results in

- a) varying effects on profit as it depends on actual usage each year.
- b) equal effects on profit each year.
- c) the least effect on profit compared to other methods.
- d) the greatest effect on profit compared to other methods.

Answer: a

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

145. Which of the following methods of depreciation results in the highest cash flow?

- a) straight-line
- b) diminishing-balance
- c) units-of-production
- d) all of these result in the same cash flow

Answer: d

Bloomcode: Comprehension

Difficulty: Easy

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

146. It is appropriate to stop recording depreciation expense when the asset's

- a) depreciable cost is less than its fair value.
- b) carrying amount exceeds its fair value.
- c) carrying amount equals its residual value.
- d) residual value equals total accumulated depreciation.

Answer: c

Bloomcode: Knowledge

Difficulty: Medium

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

147. The units-of-production method is ideal for equipment whose activity

- a) can be measured in units of output.
- b) can be measured in units of input.
- c) is consistent from year to year.
- d) is based on time.

Answer: a

Bloomcode: Comprehension

Difficulty: Medium

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

148. Which of the following terms describe an asset's cost less its residual value?

- a) carrying value
- b) net book value

- c) depreciation expense
- d) depreciable amount

Answer: d

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

149. Yani Company purchased a specialized machine on April 1, 2017 for a total cost of \$254,000 from Scissor Manufactory. This machine is expected to become outdated and be replaced in 16 years at which time it will have a residual value of \$25,000. What amount would be reported as depreciation expense for this machine on Yani's December 31, 2017 income statement if Yani used the straight-line method of depreciation? Round answer to the nearest whole dollar.

- a) \$15,875
- b) \$11,906
- c) \$10,734
- d) \$14,312

Answer: c

Bloomcode: Application

Difficulty: Easy

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

150. A change in the estimated useful life of equipment requires

- a) a retroactive change in the amount of periodic depreciation recognized in previous years.
- b) that no change be made in the periodic depreciation so that depreciation amounts are comparable over the life of the asset.
- c) that the amount of periodic depreciation be changed in the current year and in future years.
- d) that profit for the current year be increased.

Answer: c

Bloomcode: Knowledge

Difficulty: Medium

Learning Objective: Explain the factors that cause changes in periodic depreciation and calculate revised depreciation for property, plant, and equipment.

Section Reference: Revising Periodic Depreciation

CPA: Financial Reporting

151. Pugwash Company has decided to change the estimate of the useful life of an asset that has been in service for 2 years. Which of the following statements describes the proper way to

revise a useful life estimate?

- a) Revisions in useful life are permitted if approved by the Chartered Professional Accountants.
- b) Retroactive changes must be made to correct previously recorded depreciation.
- c) Depreciation in future years only will be affected by the revision.
- d) Depreciation in both current and future years will be affected by the revision.

Answer: d

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Explain the factors that cause changes in periodic depreciation and calculate revised depreciation for property, plant, and equipment.

Section Reference: Revising Periodic Depreciation

CPA: Financial Reporting

152. Wu's Copy Shop bought equipment for \$16,000 on January 1, 2017. Wu estimated the useful life to be 4 years with no residual value, and the straight-line method of depreciation will be used. On December 31, 2018, prior to recording depreciation for that year, Wu decides that the business will use the equipment for a total of 5 years. What is the depreciation expense for 2018?

- a) \$6,000
- b) \$2,400
- c) \$3,000
- d) \$4,500

Answer: c

Bloomcode: Application

Difficulty: Medium

Learning Objective: Explain the factors that cause changes in periodic depreciation and calculate revised depreciation for property, plant, and equipment.

Section Reference: Revising Periodic Depreciation

CPA: Financial Reporting

153. Annual depreciation expense needs to be revised if

- a) there is an impairment loss.
- b) repairs are completed to restore the asset to its prior condition.
- c) insurance premiums on the asset increase.
- d) worn out parts are replaced.

Answer: a

Bloomcode: Knowledge

Difficulty: Medium

Learning Objective: Explain the factors that cause changes in periodic depreciation and calculate revised depreciation for property, plant, and equipment.

Section Reference: Revising Periodic Depreciation

CPA: Financial Reporting

154. Property, plant, and equipment are considered impaired if the carrying amount exceeds the asset's

- a) depreciation expense.
- b) fair value.
- c) recoverable amount.
- d) accumulated depreciation.

Answer: c

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Explain the factors that cause changes in periodic depreciation and calculate revised depreciation for property, plant, and equipment.

Section Reference: Revising Periodic Depreciation

CPA: Financial Reporting

155. Revaluation model is allowed under IFRS mainly because it is useful in countries where

- a) there is a high inventory turnover.
- b) companies cannot estimate fair value of assets.
- c) there is a high inflation rates.
- d) companies cannot determine an appropriate method of depreciation.

Answer: c

Bloomcode: Knowledge

Difficulty: Hard

Learning Objective: Explain the factors that cause changes in periodic depreciation and calculate revised depreciation for property, plant, and equipment.

Section Reference: Revising Periodic Depreciation

CPA: Financial Reporting

156. The appropriateness of the depreciation method selected should be reviewed at least

- a) monthly.
- b) annually.
- c) every 5 years.
- d) every 10 years.

Answer: b

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Explain the factors that cause changes in periodic depreciation and calculate revised depreciation for property, plant, and equipment.

Section Reference: Revising Periodic Depreciation

CPA: Financial Reporting

157. When there is a change in the useful life of an asset, depreciation must be revised if you

are using

- a) straight-line depreciation.
- b) units-of-production depreciation.
- c) diminishing-balance depreciation.
- d) any of the above depreciation methods.

Answer: d

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Explain the factors that cause changes in periodic depreciation and calculate revised depreciation for property, plant, and equipment.

Section Reference: Revising Periodic Depreciation

CPA: Financial Reporting

158. Champion Company reviews its assets every fiscal year for potential asset impairments. In the current year Champion realized through its impairment assessment that a specialized machine has a recoverable amount of \$360,500. This asset carries a cost of \$890,000 and up-to-date accumulated depreciation of \$549,200. What amount would be reported as an impairment loss on Champion's current income statement at year end?

- a) \$0
- b) \$340,800
- c) \$360,500
- d) \$19,700

Answer: a

Bloomcode: Application

Difficulty: Medium

Learning Objective: Explain the factors that cause changes in periodic depreciation and calculate revised depreciation for property, plant, and equipment.

Section Reference: Revising Periodic Depreciation

CPA: Financial Reporting

159. Under the revaluation method, the carrying amount of property, plant, and equipment is defined as

- a) cost less accumulated depreciation.
- b) fair value less accumulated depreciation less accumulated impairment losses.
- c) cost less depreciation expense less impairment loss.
- d) cost less depreciations expense.

Answer: b

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Explain the factors that cause changes in periodic depreciation and calculate revised depreciation for property, plant, and equipment.

Section Reference: Revising Periodic Depreciation

CPA: Financial Reporting

160. A gain on disposal of an asset occurs when the proceeds of the sale are greater than the

- a) loan outstanding on the asset sold.
- b) fair value of the asset sold.
- c) carrying amount of the asset sold.
- d) the original cost of the asset sold.

Answer: c

Bloomcode: Knowledge

Difficulty: Medium

Learning Objective: Demonstrate how to account for property, plant, and equipment disposals.

Section Reference: Disposals of Property, Plant, and Equipment

CPA: Financial Reporting

161. A gain or loss on disposal of a long-lived asset is determined by comparing the

- a) replacement cost of the asset with the asset's original cost.
- b) carrying amount of the asset with the asset's original cost.
- c) original cost of the asset with the proceeds received from its sale.
- d) carrying amount of the asset with the proceeds received from its sale.

Answer: d

Bloomcode: Comprehension

Difficulty: Easy

Learning Objective: Demonstrate how to account for property, plant, and equipment disposals.

Section Reference: Disposals of Property, Plant, and Equipment

CPA: Financial Reporting

162. If a long-lived asset is sold before it is fully depreciated, and the proceeds received is less than the asset's carrying amount,

- a) a gain on disposal occurs.
- b) a loss on disposal occurs.
- c) there is no gain or loss on disposal.
- d) additional depreciation expense must be recorded.

Answer: b

Bloomcode: Comprehension

Difficulty: Easy

Learning Objective: Demonstrate how to account for property, plant, and equipment disposals.

Section Reference: Disposals of Property, Plant, and Equipment

CPA: Financial Reporting

163. If a long-lived asset is sold and the carrying amount is higher than the proceeds received,

- a) profit will be increased.
- b) profit will be decreased.

- c) there will be no effect on profit.
- d) the current ratio will increase.

Answer: b

Bloomcode: Application

Difficulty: Easy

Learning Objective: Demonstrate how to account for property, plant, and equipment disposals.

Section Reference: Disposals of Property, Plant, and Equipment

CPA: Financial Reporting

164. A company sells a long-lived asset which originally cost \$150,000 for \$50,000 on December 31, 2017. The accumulated depreciation account had a balance of \$60,000 after the current year's depreciation of \$15,000 had been recorded. The company should recognize a

- a) \$100,000 loss on disposal.
- b) \$40,000 gain on disposal.
- c) \$40,000 loss on disposal.
- d) \$25,000 loss on disposal.

Answer: c

Bloomcode: Application

Difficulty: Medium

Learning Objective: Demonstrate how to account for property, plant, and equipment disposals.

Section Reference: Disposals of Property, Plant, and Equipment

CPA: Financial Reporting

165. If disposal of a long-lived asset occurs during the year, depreciation is

- a) not recorded for the year.
- b) recorded for the whole year.
- c) recorded for the fraction of the year to the date of the disposal.
- d) not recorded if the asset is scrapped.

Answer: c

Bloomcode: Knowledge

Difficulty: Medium

Learning Objective: Demonstrate how to account for property, plant, and equipment disposals.

Section Reference: Disposals of Property, Plant, and Equipment

CPA: Financial Reporting

166. If a fully depreciated long-lived asset is still used by a company, the

- a) estimated remaining useful life must be revised to calculate the correct revised depreciation.
- b) asset is removed from the books.
- c) accumulated depreciation account is removed from the books but the asset account remains.
- d) asset and the accumulated depreciation continue to be reported on the balance sheet without adjustment until the asset is retired.

Answer: d

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Demonstrate how to account for property, plant, and equipment disposals.

Section Reference: Disposals of Property, Plant, and Equipment

CPA: Financial Reporting

167. Which of the following statements is NOT true when a fully depreciated long-lived asset is retired?

- a) The long-lived asset's carrying amount is equal to its estimated residual value.
- b) The accumulated depreciation account is debited.
- c) The asset account is credited.
- d) The long-lived asset's original cost equals its carrying amount.

Answer: d

Bloomcode: Knowledge

Difficulty: Medium

Learning Objective: Demonstrate how to account for property, plant, and equipment disposals.

Section Reference: Disposals of Property, Plant, and Equipment

CPA: Financial Reporting

168. If a long-lived asset is retired before it is fully depreciated, and no residual or scrap value is received,

- a) a gain on disposal will be recorded.
- b) phantom depreciation must be taken as though the asset were still on the books.
- c) a loss on disposal will be recorded.
- d) no gain or loss on disposal will be recorded.

Answer: c

Bloomcode: Knowledge

Difficulty: Medium

Learning Objective: Demonstrate how to account for property, plant, and equipment disposals.

Section Reference: Disposals of Property, Plant, and Equipment

CPA: Financial Reporting

169. If the carrying amount of an asset equals its fair value at the date of sale,

- a) a gain on disposal is recorded.
- b) no gain or loss on disposal is recorded.
- c) the long-lived asset is fully depreciated.
- d) a loss on disposal is recorded.

Answer: b

Bloomcode: Knowledge

Difficulty: Medium

Learning Objective: Demonstrate how to account for property, plant, and equipment disposals.  
Section Reference: Disposals of Property, Plant, and Equipment  
CPA: Financial Reporting

170. A truck costing \$47,000 was destroyed during a flood. At the date of the flood, the accumulated depreciation on the truck was \$22,000. An insurance cheque for \$35,000 was received based on the replacement cost of the truck. The entry to record the insurance proceeds and the disposition of the truck will include a

- a) gain on disposal of \$10,000.
- b) credit to the Truck account of \$12,000.
- c) credit to the Accumulated Depreciation account for \$22,000.
- d) gain on disposal of \$25,000.

Answer: a

Bloomcode: Application

Difficulty: Easy

Learning Objective: Demonstrate how to account for property, plant, and equipment disposals.  
Section Reference: Disposals of Property, Plant, and Equipment  
CPA: Financial Reporting

171. On July 1, 2017 Amherst Co. sells equipment for \$22,000. The equipment originally cost \$60,000, had an estimated 5-year life and an expected residual value of \$10,000. The accumulated depreciation account had a balance of \$35,000 on January 1, 2017, using the straight-line method. The gain or loss on disposal is

- a) \$3,000 gain.
- b) \$2,000 loss.
- c) \$3,000 loss.
- d) \$2,000 gain.

Answer: d

Bloomcode: Application

Difficulty: Hard

Learning Objective: Demonstrate how to account for property, plant, and equipment disposals.  
Section Reference: Disposals of Property, Plant, and Equipment  
CPA: Financial Reporting

172. In an exchange of assets, the new asset is recorded at

- a) the fair value of the asset given up.
- b) the fair value of the new asset.
- c) the carrying amount of the asset given up plus any cash paid (or less any cash received).
- d) the fair value of the asset given up plus any cash paid (or less any cash received).

Answer: d

Bloomcode: Knowledge

Difficulty: Medium

Learning Objective: Demonstrate how to account for property, plant, and equipment disposals.  
Section Reference: Disposals of Property, Plant, and Equipment  
CPA: Financial Reporting

173. Maverick Inc. exchanged an old vehicle for a new vehicle on August 31, 2017. The original cost of the vehicle was \$45,000 on January 1, 2013. Depreciation was calculated using the straight-line method over a ten-year useful life, with an estimated residual value of \$3,000. The fair value of the old vehicle on August 31, 2017 was \$21,500. The list price of the new vehicle was \$30,000. Maverick received a \$24,000 trade in allowance from the dealership and paid \$6,000 cash for the new vehicle. The new machinery should be recorded on Maverick's books at

- a) \$30,000.
- b) \$27,500.
- c) \$24,000.
- d) \$23,500.

Answer: b

Bloomcode: Application  
Difficulty: Hard

Learning Objective: Demonstrate how to account for property, plant, and equipment disposals.  
Section Reference: Disposals of Property, Plant, and Equipment  
CPA: Financial Reporting

174. Maverick Inc. exchanged an old vehicle for a new vehicle on August 31, 2017. The original cost of the vehicle was \$45,000 on January 1, 2013. Depreciation was calculated using the straight-line method over a ten-year useful life, with an estimated residual value of \$3,000. The fair value of the old vehicle on August 31, 2017 was \$21,500. The list price of the new vehicle was \$30,000. Maverick received a \$24,000 trade in allowance from the dealership and paid \$6,000 cash for the new vehicle. As a result of this transaction, the company would record which of the following?

- a) Dr. Loss on Disposal \$3,900
- b) Cr. Vehicle \$23,500
- c) Cr. Gain on Disposal \$3,900
- d) Cr. Cash \$24,000

Answer: a

Bloomcode: Application  
Difficulty: Hard

Learning Objective: Demonstrate how to account for property, plant, and equipment disposals.  
Section Reference: Disposals of Property, Plant, and Equipment  
CPA: Financial Reporting

175. Krantz Company's delivery truck, which originally cost \$28,000, was destroyed by fire. At the time of the fire, the balance of the accumulated depreciation account amounted to \$19,000. The company received \$16,000 reimbursement from its insurance company. The gain or loss as a result of the fire was

- a) \$12,000 loss.
- b) \$7,000 loss.
- c) \$12,000 gain.
- d) \$7,000 gain.

Answer: d

Bloomcode: Application

Difficulty: Easy

Learning Objective: Demonstrate how to account for property, plant, and equipment disposals.

Section Reference: Disposals of Property, Plant, and Equipment

CPA: Financial Reporting

176. A loss on disposal of a long-lived asset is reported in the financial statements

- a) as an increase to depreciation expense in the income statement.
- b) in the operating expenses section of the income statement.
- c) as a direct increase to the capital account on the balance sheet.
- d) as a direct decrease to the capital account on the balance sheet.

Answer: b

Bloomcode: Knowledge

Difficulty: Medium

Learning Objective: Demonstrate how to account for property, plant, and equipment disposals.

Section Reference: Disposals of Property, Plant, and Equipment

CPA: Financial Reporting

177. Rudolf Snow Systems purchased land and building on January 1, 2003 for a combined price of \$285,000. Rudolf allocated 75% of the purchase price to the building and 25% to the land to approximate their individual fair values. The building was depreciated using the double diminishing-balance and accumulated depreciation to date was correctly computed as \$190,000. The land and building was subsequently sold on June 18, 2017 for a combined price of \$650,000. What gain or loss on disposal of these assets would be reported in 2017?

- a) gain of \$95,000
- b) gain of \$555,000
- c) gain of \$578,750
- d) gain of \$626,250

Answer: b

Bloomcode: Application

Difficulty: Hard

Learning Objective: Demonstrate how to account for property, plant, and equipment disposals.

Section Reference: Disposals of Property, Plant, and Equipment

CPA: Financial Reporting

178. Frederik Company owns specialized equipment with an original cost of \$235,000. The company has fully depreciated the asset over the past 5 years and has now made the decision

to retire the asset. Which journal entry would be required to record the retirement of this equipment?

- a) Debit to Equipment and credit to Accumulated Depreciation—Equipment for \$235,000
- b) Debit Depreciation Expense and credit Accumulated Depreciation—Equipment for \$235,000
- c) Debit Accumulated Depreciation—Equipment and credit Depreciation Expense for \$235,000
- d) Debit to Accumulated Depreciation—Equipment and credit to Equipment for \$235,000

Answer: d

Bloomcode: Application

Difficulty: Medium

Learning Objective: Demonstrate how to account for property, plant, and equipment disposals.

Section Reference: Disposals of Property, Plant, and Equipment

CPA: Financial Reporting

179. Natural resources are frequently referred to as wasting assets because

- a) they are worthless.
- b) they are physically extracted in operations and are replaceable only by an act of nature.
- c) there is a lot of inefficiency in their use in operations.
- d) there is a lot of spoilage when they are extracted.

Answer: b

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Record natural resource transactions and calculate depletion.

Section Reference: Natural Resources

CPA: Financial Reporting

180. Natural resource depletion is

- a) a decrease in fair value of natural resources.
- b) the amount of spoilage that occurs when natural resources are extracted.
- c) the process of allocating the cost of natural resources extracted and sold to expense.
- d) the method used to record unsuccessful oil well explorations.

Answer: c

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Record natural resource transactions and calculate depletion.

Section Reference: Natural Resources

CPA: Financial Reporting

181. Natural resource depletion is most often a function of

- a) the expected economic life of the natural resource.
- b) the expected period over which the resource is expected to be exhausted.
- c) the units of natural resource extracted during the period.
- d) the number of years expected to be in operations.

Answer: c

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Record natural resource transactions and calculate depletion.

Section Reference: Natural Resources

CPA: Financial Reporting

182. All of the following are examples of wasting assets EXCEPT a

- a) coal mine.
- b) timber stand.
- c) logging truck.
- d) gold mine.

Answer: c

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Record natural resource transactions and calculate depletion.

Section Reference: Natural Resources

CPA: Financial Reporting

183. The method most commonly used to calculate natural resource depreciation is the

- a) straight-line method.
- b) diminishing-balance method.
- c) units-of-production method.
- d) revaluation method.

Answer: c

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Record natural resource transactions and calculate depletion.

Section Reference: Natural Resources

CPA: Financial Reporting

184. In calculating natural resource depreciation, residual value is

- a) always immaterial.
- b) ignored.
- c) impossible to estimate.
- d) included in the calculation.

Answer: d

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Record natural resource transactions and calculate depletion.

Section Reference: Natural Resources  
CPA: Financial Reporting

185. If a mining company extracts 1,500,000 tonnes in a period but only sells 1,200,000 tonnes,
- a) accumulated depreciation on the mine is based on the 1,200,000 tonnes.
  - b) depreciation included in cost of goods sold is based on the 1,500,000 tonnes extracted.
  - c) depreciation included in cost of goods sold is based on the 1,200,000 tonnes extracted and sold.
  - d) a separate accumulated depreciation account is set up to record depreciation on the 300,000 tonnes extracted but not sold.

Answer: c

Bloomcode: Application  
Difficulty: Easy  
Learning Objective: Record natural resource transactions and calculate depletion.  
Section Reference: Natural Resources  
CPA: Financial Reporting

186. A coal company invests \$12 million in a mine estimated to have 20 million tonnes of coal and no residual value. It is expected that the mine will be in operation for 5 years. In the first year, 1,000,000 tonnes of coal are extracted and sold. What is the depreciation included in cost of goods sold for the first year?
- a) \$600,000
  - b) \$240,000
  - c) \$60,000
  - d) cannot be determined from the information provided

Answer: a

Bloomcode: Application  
Difficulty: Medium  
Learning Objective: Record natural resource transactions and calculate depletion.  
Section Reference: Natural Resources  
CPA: Financial Reporting

187. Depreciation of natural resources is initially debited to
- a) cost of goods sold expense.
  - b) inventory.
  - c) depreciation expense.
  - d) loss on extraction of resources.

Answer: b

Bloomcode: Knowledge  
Difficulty: Easy  
Learning Objective: Record natural resource transactions and calculate depletion.  
Section Reference: Natural Resources

CPA: Financial Reporting

188. Which of the following would NOT be considered a natural resource?

- a) mineral deposit
- b) herd of cows
- c) gravel pit
- d) timberlands

Answer: b

Bloomcode: Comprehension

Difficulty: Easy

Learning Objective: Record natural resource transactions and calculate depletion.

Section Reference: Natural Resources

CPA: Financial Reporting

189. On July 1, 2017, Yukon Minerals Co. purchased the mineral rights to a granite deposit for \$700,000. It is estimated that the recoverable granite will be 400,000 tonnes. During 2017, 100,000 tonnes of granite was extracted and 60,000 tonnes were sold. The amount of the depreciation expense to be included in cost of goods sold for 2017 would be

- a) \$87,500.
- b) \$52,500.
- c) \$105,000.
- d) \$175,000.

Answer: c

Bloomcode: Application

Difficulty: Medium

Learning Objective: Record natural resource transactions and calculate depletion.

Section Reference: Natural Resources

CPA: Financial Reporting

190. The calculated annual depletion expense is initially debited to

- a) Inventory.
- b) Natural Resource Property.
- c) Accumulated Depletion.
- d) Cash.

Answer: a

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Record natural resource transactions and calculate depletion.

Section Reference: Natural Resources

CPA: Financial Reporting

191. Helios invested \$6 million for the rights to explore and extract natural resources from land in Ukraine. The company estimated that a total of 1.5 million tons of ore would be extracted from the property. The company extracted 50,000 tons of ore in its first year of operations. What entry would be necessary to record depletion?

- a) Debit to Natural Resource Property and credit to Accumulated Depletion—Natural Resource Property for \$200,000
- b) Debit to Inventory and credit to Accumulated Depletion—Natural Resource Property for \$200,000
- c) Debit to Natural Resource Property and credit to Accumulated Depletion—Natural Resource Property for \$6,000,000
- d) Debit to Inventory and credit to Accumulated Depletion—Natural Resource Property for \$6,000,000

Answer: b

Bloomcode: Application

Difficulty: Medium

Learning Objective: Record natural resource transactions and calculate depletion.

Section Reference: Natural Resources

CPA: Financial Reporting

192. Which of the following assets has indefinite life?

- a) land improvements
- b) patent
- c) goodwill
- d) copyright

Answer: c

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Identify the basic accounting issues for intangible assets and goodwill.

Section Reference: Intangible Assets and Goodwill

CPA: Financial Reporting

193. Which of the following statements is correct?

- a) All research and development costs should be capitalized.
- b) Development costs are always capitalized.
- c) Research costs should always be expensed as incurred.
- d) All research and development costs should be expensed as incurred.

Answer: c

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Identify the basic accounting issues for intangible assets and goodwill.

Section Reference: Intangible Assets and Goodwill

CPA: Financial Reporting

194. Intangible assets are the rights and privileges that result from ownership of long-lived assets that many of which

- a) must be generated internally.
- b) are depreciable natural resources.
- c) have been exchanged at a gain.
- d) do not have physical substance.

Answer: d

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Identify the basic accounting issues for intangible assets and goodwill.

Section Reference: Intangible Assets and Goodwill

CPA: Financial Reporting

195. If an intangible asset with an indefinite life becomes impaired, the asset must be

- a) written down to cost.
- b) written down to fair value.
- c) sold at its net realizable value.
- d) No adjustment is required and a loss will be recorded when the intangible asset is sold.

Answer: b

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Identify the basic accounting issues for intangible assets and goodwill.

Section Reference: Intangible Assets and Goodwill

CPA: Financial Reporting

196. If a company incurs legal costs in successfully defending its patent, these costs are recorded by debiting

- a) Legal Expense.
- b) a Loss on Intangibles account.
- c) the Patent account.
- d) an operating expenditure account.

Answer: c

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Identify the basic accounting issues for intangible assets and goodwill.

Section Reference: Intangible Assets and Goodwill

CPA: Financial Reporting

197. The cost of successfully defending a patent in an infringement suit should be

- a) charged to Legal Expenses.
- b) deducted from the carrying amount of the patent.

- c) added to the cost of the patent.
- d) recognized as a loss in the current period.

Answer: c

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Identify the basic accounting issues for intangible assets and goodwill.

Section Reference: Intangible Assets and Goodwill

CPA: Financial Reporting

198. An asset that CANNOT be sold individually is

- a) a patent.
- b) goodwill.
- c) a copyright.
- d) a trade name.

Answer: b

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Identify the basic accounting issues for intangible assets and goodwill.

Section Reference: Intangible Assets and Goodwill

CPA: Financial Reporting

199. Goodwill can be recorded

- a) when customers keep returning because they are satisfied with the company's products.
- b) when the company acquires a good location for its business.
- c) when the company has exceptional management.
- d) only when an entire business is purchased.

Answer: d

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Identify the basic accounting issues for intangible assets and goodwill.

Section Reference: Intangible Assets and Goodwill

CPA: Financial Reporting

200. Which is NOT a characteristic of goodwill?

- a) It can be sold.
- b) It is never amortized.
- c) It is tested for impairment annually.
- d) It has indefinite life.

Answer: a

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Identify the basic accounting issues for intangible assets and goodwill.

Section Reference: Intangible Assets and Goodwill

CPA: Financial Reporting

201. On January 1, 2017, Keebler Company purchased the copyright to Bodine Computer Tutorials for \$81,000. It is estimated that the copyright will have a useful life of 5 years with an estimated residual value of \$6,000. The amount of amortization expense recognized for the year 2017 would be

- a) \$16,200.
- b) \$7,500.
- c) \$15,000.
- d) \$8,100.

Answer: c

Bloomcode: Application

Difficulty: Easy

Learning Objective: Identify the basic accounting issues for intangible assets and goodwill.

Section Reference: Intangible Assets and Goodwill

CPA: Financial Reporting

202. Which of the following is an intangible asset that has a finite life?

- a) goodwill
- b) patent
- c) trademark
- d) franchise

Answer: b

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Identify the basic accounting issues for intangible assets and goodwill.

Section Reference: Intangible Assets and Goodwill

CPA: Financial Reporting

203. A franchise should be classified on the balance sheet as a(n)

- a) current asset.
- b) prepaid expense.
- c) intangible asset.
- d) property, plant, and equipment.

Answer: c

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Identify the basic accounting issues for intangible assets and goodwill.

Section Reference: Intangible Assets and Goodwill

CPA: Financial Reporting

204. A patent can be renewed

- a) every twenty years.
- b) only after its economic life has been exhausted.
- c) only if significantly defended in an infringement suit.
- d) A patent can never be renewed.

Answer: d

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Identify the basic accounting issues for intangible assets and goodwill.

Section Reference: Intangible Assets and Goodwill

CPA: Financial Reporting

205. Development costs

- a) are always expensed when incurred.
- b) cannot be recorded separately from research costs.
- c) can be capitalized if it can be shown that the costs will provide future benefits.
- d) are intangible assets that are not amortized.

Answer: c

Bloomcode: Comprehension

Difficulty: Easy

Learning Objective: Identify the basic accounting issues for intangible assets and goodwill.

Section Reference: Intangible Assets and Goodwill

CPA: Financial Reporting

206. An intangible asset should

- a) be expensed immediately if it has a finite life.
- b) not be amortized if it has an indefinite life.
- c) be grouped together with property plant, and equipment for reporting purposes.
- d) be depreciated over its useful life or legal life, whichever is longer.

Answer: b

Bloomcode: Comprehension

Difficulty: Easy

Learning Objective: Identify the basic accounting issues for intangible assets and goodwill.

Section Reference: Intangible Assets and Goodwill

CPA: Financial Reporting

207. Copyrights are granted by the federal government

- a) for the life of the creator or 50 years, whichever is longer.
- b) for the life of the creator plus 50 years.

- c) for the life of the creator or 50 years, whichever is shorter.
- d) and therefore cannot be amortized.

Answer: b

Bloomcode: Comprehension

Difficulty: Easy

Learning Objective: Identify the basic accounting issues for intangible assets and goodwill.

Section Reference: Intangible Assets and Goodwill

CPA: Financial Reporting

208. In recording the acquisition cost of an entire business,

- a) goodwill is recorded as the excess of cost over the fair value of net identifiable assets.
- b) assets are recorded at the seller's carrying amounts.
- c) goodwill, if it exists, is never recorded.
- d) goodwill is recorded as the excess of cost over the carrying amount of net identifiable assets.

Answer: a

Bloomcode: Knowledge

Difficulty: Medium

Learning Objective: Identify the basic accounting issues for intangible assets and goodwill.

Section Reference: Intangible Assets and Goodwill

CPA: Financial Reporting

209. Research costs

- a) are classified as intangible assets.
- b) must be expensed when incurred under both IFRS and ASPE.
- c) should be included in the cost of the patent they relate to.
- d) are capitalized and then depreciated over a period not to exceed 40 years.

Answer: b

Bloomcode: Knowledge

Difficulty: Medium

Learning Objective: Identify the basic accounting issues for intangible assets and goodwill.

Section Reference: Intangible Assets and Goodwill

CPA: Financial Reporting

210. Goodwill

- a) may be expensed upon purchase if desired.
- b) can be sold by itself to another company.
- c) can be purchased and charged directly to owner's equity.
- d) should be recorded as an intangible asset and carried on the balance sheet unless an impairment in value occurs.

Answer: d

Bloomcode: Comprehension

Difficulty: Easy

Learning Objective: Identify the basic accounting issues for intangible assets and goodwill.

Section Reference: Intangible Assets and Goodwill

CPA: Financial Reporting

211. Which of the following is NOT an intangible asset that is reported on the balance sheet?

- a) goodwill
- b) internally developed trademarks
- c) employees
- d) copyrights

Answer: b

Bloomcode: Comprehension

Difficulty: Easy

Learning Objective: Identify the basic accounting issues for intangible assets and goodwill.

Section Reference: Intangible Assets and Goodwill

CPA: Financial Reporting

212. For an intangible asset with a finite life, the cost less residual value should be allocated over the

- a) estimated useful life.
- b) legal life.
- c) shorter of the estimated useful life and legal life.
- d) higher of the estimated useful life and legal life.

Answer: c

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Identify the basic accounting issues for intangible assets and goodwill.

Section Reference: Intangible Assets and Goodwill

CPA: Financial Reporting

213. Which of the following statements is most accurate with respect to goodwill?

- a) Goodwill is an intangible asset subject to annual amortization.
- b) Goodwill is an intangible asset subject to annual amortization and impairment testing.
- c) Goodwill is not amortized but is tested annually for impairment.
- d) Goodwill is not amortized or tested for impairment.

Answer: c

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Identify the basic accounting issues for intangible assets and goodwill.

Section Reference: Intangible Assets and Goodwill

CPA: Financial Reporting

214. A high return on assets indicates

- a) a profitable company.
- b) the amount of sales generated by each dollar invested in total assets.
- c) new assets need to be purchased.
- d) the company may be in financial difficulty.

Answer: a

Bloomcode: Comprehension

Difficulty: Medium

Learning Objective: Illustrate the reporting and analysis of long-lived assets.

Section Reference: Statement Presentation and Analysis

CPA: Financial Reporting

215. For the year ended December 31, 2017, Akito Co. has net sales of \$1,000,000 and profit of \$290,000. Total assets on January 1, 2017 were \$1,750,000 and total assets at December 31, 2017 are \$1,245,000. Akito's return on assets for 2017 is

- a) 19.4%.
- b) 23.3%.
- c) 66.8%.
- d) 80.3%.

Answer: a

Bloomcode: Application

Difficulty: Easy

Learning Objective: Illustrate the reporting and analysis of long-lived assets.

Section Reference: Statement Presentation and Analysis

CPA: Financial Reporting

216. Natural resources are generally shown on the balance sheet under

- a) Intangible Assets.
- b) Investments.
- c) Property, Plant, and Equipment.
- d) Owner's Equity.

Answer: c

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Illustrate the reporting and analysis of long-lived assets.

Section Reference: Statement Presentation and Analysis

CPA: Financial Reporting

217. Which of the following statements concerning financial statement presentation is NOT a true statement?

- a) Intangible assets can be listed separately on the balance sheet.
- b) The balances of major classes of assets may be disclosed in the footnotes.
- c) The balances of the accumulated depreciation of major classes of assets may be disclosed in the footnotes.
- d) The balances of all individual assets, as they appear in the subsidiary long-lived asset ledger, should be disclosed in the footnotes.

Answer: d

Bloomcode: Comprehension

Difficulty: Hard

Learning Objective: Illustrate the reporting and analysis of long-lived assets.

Section Reference: Statement Presentation and Analysis

CPA: Financial Reporting

218. Intangible assets

- a) are not reported on the balance sheet because they are expensed.
- b) are not reported on the balance sheet because they lack physical substance.
- c) should be reported as current assets on the balance sheet.
- d) should be reported as a separate classification on the balance sheet.

Answer: d

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Illustrate the reporting and analysis of long-lived assets.

Section Reference: Statement Presentation and Analysis

CPA: Financial Reporting

219. A company has the following assets:

Buildings and equipment, less accumulated depreciation of \$2,500,000	\$12,000,000
Copyrights, less accumulated amortization of \$240,000	1,200,000
Goodwill	5,000,000

The total amount reported under property, plant, and equipment would be

- a) \$12,000,000.
- b) \$14,500,000.
- c) \$17,000,000.
- d) \$19,200,000.

Answer: a

Bloomcode: Comprehension

Difficulty: Medium

Learning Objective: Illustrate the reporting and analysis of long-lived assets.

Section Reference: Statement Presentation and Analysis

CPA: Financial Reporting

220. Asset turnover is calculated as follows:

- a) net sales divided by average total assets.
- b) property, plant and equipment divided by total assets.
- c) long-lived assets divided by total sales.
- d) net sales divided by net long-lived assets.

Answer: a

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Illustrate the reporting and analysis of long-lived assets.

Section Reference: Statement Presentation and Analysis

CPA: Financial Reporting

221. Which of the following statements is correct with respect to the return on assets ratio?

- a) Return on assets is a measure of liquidity.
- b) Calculated by dividing net sales by average total assets.
- c) Indicates the amount of net sales generated by each dollar invested in assets.
- d) A high return on assets indicates a profitable company.

Answer: d

Bloomcode: Knowledge

Difficulty: Medium

Learning Objective: Illustrate the reporting and analysis of long-lived assets.

Section Reference: Statement Presentation and Analysis

CPA: Financial Reporting

## MATCHING QUESTIONS

222. Match the items below by entering the appropriate code letter in the space provided.

- |                         |                               |
|-------------------------|-------------------------------|
| A. Long-lived assets    | F. Units-of-production method |
| B. Depreciation         | G. Diminishing-balance method |
| C. Carrying amount      | H. Operating expenditures     |
| D. Residual value       | I. Capital expenditures       |
| E. Straight-line method | J. Capital cost allowance     |

- \_\_\_ 1. Small expenditures which primarily benefit the current period
  
- \_\_\_ 2. Long-lived resources that are used in operations and are not intended for resale
  
- \_\_\_ 3. Cost less accumulated depreciation
  
- \_\_\_ 4. An accelerated depreciation method used for financial statement purposes
  
- \_\_\_ 5. Results in an equal amount of depreciation each period
  
- \_\_\_ 6. Expected cash value of the asset at the end of its useful life
  
- \_\_\_ 7. Process of allocating the cost of a depreciable asset over its useful life
  
- \_\_\_ 8. Material expenditures which increase an asset's operating efficiency, productive capacity, or useful life
  
- \_\_\_ 9. An accelerated depreciation method used for income tax purposes
  
- \_\_\_ 10. Estimated useful life is expressed in terms of expected use

223. Match the items below by entering the appropriate code letter in the space provided.

- |                      |                      |
|----------------------|----------------------|
| A. Gain on disposal  | E. Goodwill          |
| B. Loss on disposal  | F. Depreciation      |
| C. Trademark         | G. Intangible assets |
| D. Natural resources | H. Research costs    |

- \_\_\_ 1. Process of allocating the cost of a depreciable asset to expense over its useful life
- \_\_\_ 2. Occurs if proceeds of disposal exceed the carrying amount
- \_\_\_ 3. When carrying amount of asset is greater than the proceeds received from its sale
- \_\_\_ 4. Long-lived assets replaceable only by an act of nature
- \_\_\_ 5. Can be identified only with a business as a whole
- \_\_\_ 6. Examples are franchises and licences
- \_\_\_ 7. A symbol that identifies a particular company or product
- \_\_\_ 8. Must be expensed when incurred

## ANSWERS TO MATCHING QUESTIONS

222.

1. H
2. A
3. C
4. G
5. E
6. D
7. B
8. I
9. J
10. F

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

Learning Objective: Explain the factors that cause changes in periodic depreciation and calculate revised depreciation for property, plant, and equipment.

Section Reference: Revising Periodic Depreciation

CPA: Financial Reporting

223.

1. F
2. A
3. B
4. D
5. E
6. G

7. C

8. H

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

Learning Objective: Demonstrate how to account for property, plant, and equipment disposals.

Section Reference: Disposal of Property, Plant, and Equipment

Learning Objective: Record natural resource transactions and calculate depletion.

Section Reference: Natural Resources

Learning Objective: Identify the basic accounting issues for intangible assets and goodwill.

Section Reference: Intangible Assets and Goodwill

CPA: Financial Reporting

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# CHAPTER 9

## LONG-LIVED ASSETS

### CHAPTER STUDY OBJECTIVES

1. **Calculate the cost of property, plant, and equipment.** The cost of property, plant, and equipment includes all costs that are necessary to acquire the asset and make it ready for its intended use. All costs that benefit future periods (that is, capital expenditures) are included in the cost of the asset. When applicable, cost also includes asset retirement costs. When multiple assets are purchased in one transaction, or when an asset has significant components, the cost is allocated to each individual asset or component using their relative fair values.

2. **Apply depreciation methods to property, plant, and equipment.** After acquisition, assets are accounted for using the cost model or the revaluation model. Depreciation is recorded and assets are carried at cost less accumulated depreciation. Depreciation is the allocation of the cost of a long-lived asset to expense over its useful life (its service life) in a rational and systematic way. Depreciation is not a process of valuation and it does not result in an accumulation of cash. There are three commonly used depreciation methods:

<u>Method</u>	<u>Effect on Annual Depreciation</u>	<u>Calculation</u>
Straight-line	Constant amount	$(\text{Cost} - \text{residual value}) \div \text{estimated useful life (in years)}$
Diminishing-balance	Diminishing amount	Carrying amount at beginning of year $\times$ diminishing-balance rate
Units-of-production	Varying amount	$(\text{Cost} - \text{residual value}) \div \text{total estimated units-of-production} \times \text{actual activity during the year}$

Each method results in the same amount of depreciation over the asset's useful life. Depreciation expense for income tax purposes is called capital cost allowance (CCA).

3. **Explain the factors that cause changes in periodic depreciation and calculate revised depreciation for property, plant, and equipment.** A revision to depreciation will be required if there are (a) capital expenditures during the asset's useful life; (b) impairments in the asset's fair value; (c) changes in the asset's fair value when using the revaluation model; and/or (d) changes in the appropriate depreciation method, estimated useful life, or residual value. An impairment loss must be recorded if the recoverable amount is less than the carrying amount. Revisions of periodic depreciation are made in present and future periods, not retroactively. The new annual depreciation is determined by using the depreciable amount (carrying amount less the revised residual value), and the remaining useful life, at the time of the revision.

**4. Demonstrate how to account for property, plant, and equipment disposals.** The accounting for the disposal of a piece of property, plant, or equipment through retirement or sale is as follows:

- (a) Update any unrecorded depreciation for partial periods since depreciation was last recorded.
- (b) Calculate the carrying amount (cost – accumulated depreciation).
- (c) Calculate any gain (proceeds > carrying amount) or loss (proceeds < carrying amount) on disposal.
- (d) Remove the asset and accumulated depreciation accounts at the date of disposal. Record the proceeds received and the gain or loss, if any.

An exchange of assets is recorded as the purchase of a new asset and the sale of an old asset. The new asset is recorded at the fair value of the asset given up plus any cash paid (or less any cash received). The fair value of the asset given up is compared with its carrying amount to calculate the gain or loss. If the fair value of the new asset or the asset given up cannot be determined, the new long-lived asset is recorded at the carrying amount of the old asset that was given up, plus any cash paid (or less any cash received).

**5. Record natural resource transactions and calculate depletion.** The units-of-production method of depreciation is generally used for natural resources. The depreciable amount per unit is calculated by dividing the total depreciable amount by the number of units estimated to be in the resource. The depreciable amount per unit is multiplied by the number of units that have been extracted to determine the annual depreciation. The depreciation and any other costs to extract the resource are recorded as inventory until the resource is sold. At that time, the costs are transferred to cost of resource sold on the income statement. Revisions to depreciation will be required for capital expenditures during the asset's useful life, for impairments, and for changes in the total estimated units of the resource.

**6. Identify the basic accounting issues for intangible assets and goodwill.** The accounting for tangible and intangible assets is much the same. Intangible assets are reported at cost, which includes all expenditures necessary to prepare the asset for its intended use. An intangible asset with a finite life is amortized over the shorter of its useful life and legal life, usually on a straight-line basis. The extent of the annual impairment tests depends on whether IFRS or ASPE is followed and whether the intangible asset had a finite or indefinite life. Intangible assets with indefinite lives and goodwill are not amortized and are tested at least annually for impairment. Impairment losses on goodwill are never reversed under both IFRS and ASPE.

**7. Illustrate the reporting and analysis of long-lived assets.** It is common for property, plant, and equipment, and natural resources to be combined in financial statements under the heading "property, plant, and equipment." Intangible assets with finite and indefinite lives are sometimes combined under the heading "intangible assets" or are listed separately. Goodwill must be presented separately. Either on the balance sheet or in the notes, the cost of the major classes of long-lived assets is presented. Accumulated depreciation (if the asset is depreciable) and carrying amount must be disclosed either in the balance sheet or in the notes. The depreciation and amortization methods and rates, as well as the annual depreciation expense, must also be indicated. The company's impairment policy and any impairment losses should be described and reported. Under IFRS, companies must include a reconciliation of the carrying amount at

the beginning and end of the period for each class of long-lived assets and state whether the cost or revaluation model is used.

The asset turnover ratio (net sales  $\div$  average total assets) is one measure that is used by companies to show how efficiently they are using their assets to generate sales revenue. A second ratio, return on assets (profit  $\div$  average total assets), calculates how profitable the company is in terms of using its assets to generate profit.

## EXERCISES

### Exercise 1

Rust Company was organized on January 1. During the first year of operations, the following expenditures and receipts were recorded in random order in the account, Land:

	<u>Debits</u>
1. Cost of real estate purchased as a plant site (land and building).....	\$ 320,000
2. Legal fees paid at the time of the purchase of the real estate.....	6,500
3. Cost of demolishing building to make land suitable for construction of a new building .....	12,000
4. Architect's fees on building plans. ....	14,000
5. Excavation costs for new building. ....	24,000
6. Cost of filling and grading the land. ....	5,000
7. Insurance and taxes during construction of building. ....	6,000
8. Cost of repairs to building under construction caused by a small fire.....	14,000
9. Interest paid during the year, of which \$52,000 pertains to the construction period.....	64,000
10. Full payment to building contractor.....	760,000
11. Cost of parking lots and driveways.....	36,000
12. Property taxes paid for the current year on the land. ....	<u>4,000</u>
Total Debits.....	<u>\$1,265,500</u>
	<u>Credits</u>
13. Insurance proceeds for fire damage.....	\$10,000
14. Proceeds from residual of demolished building. ....	<u>3,500</u>
Total Credits.....	<u>\$13,500</u>

### Instructions

Analyze the above transactions using the columns below. Insert the number of each transaction in the item space and insert the amounts in the appropriate columns.

<u>Item</u>	<u>Land</u>	<u>Land Improvements</u>	<u>Building</u>	<u>Other</u>	<u>Account Title</u>
-------------	-------------	------------------------------	-----------------	--------------	----------------------

### Solution 1 (15 min.)

<u>Item</u>	<u>Land</u>	<u>Land Improvements</u>	<u>Building</u>	<u>Other</u>	<u>Account Title</u>
1.	\$320,000				
2.	6,500				
3.	12,000				
4.			\$ 14,000		
5.			24,000		

6.	5,000			
7.		6,000		
8.			\$ 14,000	Fire Loss
9.		52,000	12,000	Interest Expense
10.		760,000		
11.		\$36,000		Land Improvements
12.			4,000	Property Tax
Expense				
13.			(10,000)	Fire Loss
14.	<u>(3,500)</u>	<u>          </u>	<u>          </u>	<u>          </u>
Totals	<u>\$340,000</u>	<u>\$36,000</u>	<u>\$856,000</u>	<u>\$20,000</u>

Bloomcode: Analysis

Difficulty: Medium

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

CPA: Financial Reporting

**Exercise 2**

Identify the following expenditures as capital expenditures or operating expenditures:

1. Replacement of worn out gears on factory machinery
2. Construction of a new wing on an office building
3. Painting the exterior of a building
4. Oil change on a company truck
5. Replacing a network server’s hard drive, this increases data storage capacity by ten times. No extension of useful life expected
6. Overhaul of a truck motor. One year extension in useful life is expected
7. Purchased a wastebasket, with an expected useful life of five years, at a cost of \$10
8. Painting and lettering of a used truck upon acquisition of the truck

**Solution 2** (5 min.)

1. operating
2. capital
3. operating
4. operating

5. capital
6. capital
7. operating
8. capital

Bloomcode: Comprehension

Difficulty: Easy

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

CPA: Financial Reporting

**Exercise 3**

Below are selected entries for Econi Co.:

1. The \$60 cost of repairing a printer was charged to Computer Equipment.
2. The \$5,000 cost of a major engine overhaul was debited to Repair Expense. The overhaul is expected to increase the operating efficiency of the truck.
3. The \$6,000 closing costs associated with the acquisition of land were debited to Legal Expense.
4. A \$600 charge for transportation costs on new equipment purchased was debited to Delivery Expense.
5. Freight cost incurred bringing a new piece of machinery to the plant site was charged to Machinery.

**Instructions**

For each entry below make a correcting entry if necessary. If the entry given is correct, then state "No entry required."

**Solution 3 (10 min.)**

1. Repair Expense.....	60	
Computer Equipment .....		60
2. Truck.....	5,000	
Repair Expense.....		5,000
3. Land.....	6,000	
Legal Expense .....		6,000
4. Equipment.....	600	
Delivery Expense .....		600
5. No entry required.		

Bloomcode: Analysis

Difficulty: Easy

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment  
CPA: Financial Reporting

**Exercise 4**

Below are transactions for Oriel Company:

1. Purchased land for \$900,000.
2. Paid \$20,000 to demolish building located on land.
3. Paid \$3,000 for building permit.
4. Paid \$2,000 for architect fees.
5. Paid \$3,000 for excavation costs.
6. Paid interest of \$22,000 during construction of new building.
7. Paid \$960,000 to complete the building.
8. Paid \$30,000 to pave the parking lot.
9. Paid \$4,000 for underground sprinkler.
10. Ordered new equipment, paid \$30,000.
11. Paid \$1,500 to install and test new equipment.
12. Paid \$250 to insure equipment for one year.
13. Paid \$2,500 to paint office walls in the new building.
14. Paid \$2,000 to repair equipment.
15. Purchased a truck for \$25,000.
16. Paid \$250 for truck license.
17. Paid \$60 for oil change on new truck.
18. Paid \$15,000 for fences around the new building.
19. Purchased two cash registers for \$1,100 each.
20. Paid \$2,200 for annual yard maintenance.

**Instructions**

- a) Determine if each item should be capitalized (C) or expensed (E).
- b) Determine the balance in the land account and the building account.

**Solution 4**

- a)
1. C
  2. C
  3. C
  4. C
  5. C
  6. C
  7. C

- 8. C
- 9. C
- 10. C
- 11. C
- 12. E
- 13. E
- 14. E
- 15. C
- 16. E
- 17. E
- 18. C
- 19. C
- 20. E

b) Land Account = \$900,000 + \$20,000 = \$920,000.

Building Account = \$3,000 + \$2,000 + \$3,000 + \$22,000 + \$960,000 = \$990,000.

Bloomcode: Comprehension

Difficulty: Medium

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

CPA: Financial Reporting

### Exercise 5

Baril Company purchased land for \$115,000 with the intentions of constructing a new operating facility. The land purchase included a dilapidated building that was removed at a cost of \$16,000. The only salvage value from this old building was some materials which were sold for proceeds of \$4,000. Baril had paid surveying costs of \$1,800 and legal fees related to land transfer of \$6,700. The new building was quickly constructed at a total cost of \$422,000. Architectural drawings and permits on the construction of this new facility totaled \$18,000 and \$10,650 respectively. Insurance premiums of \$9,200 are paid annually. The production manager is currently on-site facilitating the production start-up. This manager is an annual salary of \$85,000.

### Instructions

- a) Calculate the acquisition cost of the land. Identify each element of cost clearly.

- b) Calculate the acquisition cost of the new building. Identify each element of cost clearly.

**Solution 5** (10 min.)

a) Purchase price.....	\$115,000
Demolition costs.....	16,000
Proceeds on demolition.....	(4,000)
Surveying costs.....	1,800
Legal and Land transfer costs.....	6,700
Acquisition cost of land.....	<u>\$135,500</u>
b) Construction costs.....	\$422,000
Architectural drawings.....	18,000
Building permits.....	10,650
Acquisition cost of land.....	<u>\$450,650</u>

Bloomcode: Application

Difficulty: Medium

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

CPA: Financial Reporting

**Exercise 6**

Shen Athletics purchased factory equipment with an invoice price of \$92,000. Other costs incurred were freight costs, \$2,500; installation of wiring and foundation, \$2,200; material and labour costs in testing equipment, \$700; oil lubricants and supplies to be used with equipment, \$500; one-year fire insurance policy covering equipment, \$1,400. The equipment is estimated to have an \$8,000 residual value at the end of its 5-year useful service life.

**Instructions**

- a) Calculate the acquisition cost of the equipment. Identify each element of cost clearly.  
 b) If the double diminishing-balance method of depreciation was used, the constant percentage applied to a diminishing carrying amount would be \_\_\_\_\_.

**Solution 6** (10 min.)

a) Invoice cost.....	\$92,000
Freight costs.....	2,500
Installation of wiring and foundation.....	2,200
Material and labour costs in testing.....	700
Acquisition cost.....	<u>\$97,400</u>

- b) If the diminishing-balance method of depreciation was used, the constant percentage applied to a diminishing carrying amount would be 40% ( $100\% \div 5 \text{ years} = 20\% \times 2$ ).

Bloomcode: Application

Difficulty: Easy

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

**Exercise 7**

Kelso Word Processing Service uses the straight-line method of depreciation. The company's fiscal year end is December 31. The following transactions and events occurred during the first three years.

- 2016 Jul 1 Purchased a new computer system from the Computer Centre for \$37,000 cash and shipping costs of \$250.
- Nov 3 Incurred ordinary repairs on computer of \$3,280.
- Dec 31 Recorded 2016 depreciation on the basis of an estimated five-year life and residual value of \$1,250.
  
- 2017 Dec 31 Recorded 2017 depreciation.
  
- 2018 Jan 1 Paid \$9,800 for a major upgrade of the computer. This expenditure is expected to increase the operating efficiency and capacity of the computer.

**Instructions**

Prepare the necessary entries. (Show calculations.)

**Solution 7** (15 min.)

<u>2016</u>	Jul 1	Computer Equipment.....	37,250	
		Cash.....		37,250
	Nov 3	Repairs Expense .....	3,280	
		Cash.....		3,280
	Dec 31	Depreciation Expense.....	3,600	
		Accumulated Depreciation .....		3,600
		[((\$37,250 – \$1,250) ÷ 5 × 1 ÷ 2]		
<u>2017</u>	Dec 31	Depreciation Expense.....	7,200	
		Accumulated Depreciation [((\$37,250 – \$1,250) ÷ 5]		7,200
<u>2018</u>	Jan 1	Computer Equipment.....	9,800	
		Cash.....		9,800

Bloomcode: Application

Difficulty: Medium

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

**Exercise 8**

On March 31, 2017 Delhon Industries purchased a new property for \$2,500,000 cash. Before completing the purchase, Delhon had obtained valuations to determine the relative value of the different components of the property purchased.

The valuation indicated that the fair value of the land, if purchased separately, would be \$375,000, the building's value is \$1,900,000, the manufacturing equipment \$192,500, and the office and computer equipment \$55,000. In addition to the land, building and equipment, the purchase price includes inventory with a net realizable value of \$27,500.

The anticipated life of the building is 25 years, the manufacturing equipment 10 years, and the office and computer equipment 5 years, with no residual value for any of them. Delhon has a December 31 year end.

**Instructions**

- a) Record the purchase on March 31, 2017.
- b) Record the depreciation expense for 2017 using the straight-line method assuming the company chooses to prorate depreciation based on the number of months the asset has been in use.

**Solution 8 (20 min.)**

- a) Allocation of cost based on fair values:

	Fair value	Percentage	Allocation of cost
Land	\$ 375,000	14.7%	\$ 367,500
Building	1,900,000	74.5%	1,862,500
Manufacturing equipment	192,500	7.5%	187,500
Office equipment	55,000	2.2%	55,000
Inventory	<u>27,500</u>	<u>1.1%</u>	<u>27,500</u>
	<u>\$2,550,000</u>	<u>100.0%</u>	<u>\$2,500,000</u>

Entry to record purchase

Land.....	367,500	
Building .....	1,862,500	
Manufacturing Equipment .....	187,500	
Office Equipment.....	55,000	
Merchandise Inventory .....	27,500	
Cash.....		2,500,000

b)

Depreciation Expense .....	78,188	
Accumulated depreciation—Building .....		55,875
(\$1,862,500 ÷ 25) x 9 ÷ 12		
Accumulated Depreciation—Mfg Equipment .....		14,063
(187,500 ÷ 10) x 9 ÷ 12		
Accumulated Depreciation—Office equipment .....		8,250
(55,000 ÷ 5) x 9 ÷ 12		

Bloomcode: Application

Difficulty: Hard

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

**Exercise 9**

On May 5, 2017 White Water Adventures purchased a property for \$400,000 cash. The property included the following long-lived assets:

	<u>Appraised Value</u>
Land.....	\$120,000
Building .....	200,000
Equipment.....	100,000
Paved area.....	20,000
Outdoor Lighting.....	<u>10,000</u>
	<u>\$450,000</u>

**Instructions**

- Give the journal entry to allocate the purchase price between the above assets. Round all amounts to the nearest dollar, if necessary.
- Prepare a compound journal entry to record depreciation of the long-lived assets on December 31, 2017, assuming the following additional details:

	<u>Useful Life in Years</u>	<u>Residual Value</u>
Building	30	\$20,000
Equipment	5	10,000
Paved area	4	-0-
Outdoor Lighting	10	-0-

Prorate depreciation based on the number of months the asset has been in use.

**Solution 9** (20 min.)

a)		<u>% of Appraised Value</u>	<u>Allocation of Purchase Price</u>	
	Land	$\$120,000 \div \$450,000 \times \$400,000$	=	\$106,667
	Building	$\$200,000 \div \$450,000 \times \$400,000$	=	177,778
	Equipment	$\$100,000 \div \$450,000 \times \$400,000$	=	88,889
	Paved area	$\$20,000 \div \$450,000 \times \$400,000$	=	17,778
	Outdoor Lighting	$\$10,000 \div \$450,000 \times \$400,000$	=	<u>8,888</u>
				<u>\$400,000</u>
	May 5			
	Land.....			106,667
	Building .....			177,778
	Equipment.....			88,889
	Paved Area .....			17,778
	Outdoor Lighting.....			8,888
	Cash .....			400,000
b)	Depreciation Expense .....			17,581
	Accumulated Depreciation—Building.....			3,506
	$[(\$177,778 - \$20,000) \div 30] \times 8 \div 12$			
	Accumulated Depreciation—Equipment .....			10,519
	$[(\$88,889 - \$10,000) \div 5] \times 8 \div 12$			
	Accumulated Depreciation—Paved Area.....			2,963

[(\$17,778 – \$0) ÷ 4] × 8 ÷ 12	
Accumulated Depreciation—Outdoor Lighting .....	593
[(\$8,888 – \$0) ÷ 10] × 8 ÷ 12	

Bloomcode: Application

Difficulty: Hard

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

**Exercise 10**

J.P. Climate Control depreciates all assets using the straight-line method. The company's fiscal year end is December 31. The following selected transactions and events occurred during the first three years:

- 2016 Jan 1 Purchased equipment from the Equipment World for \$214,500 on account. J.P. also incurred freight and installation costs of \$1,500 and \$4,000 respectively.
- Sep 30 Paid for annual insurance of \$4,200 and routine maintenance of \$1,700 for the machine. The insurance policy expires on September 30, 2017.
- Dec 31 Recorded 2016 depreciation on the basis of an estimated 10-year useful life and residual value of \$20,000.
  
- 2017 Dec 31 Recorded 2017 depreciation and impairment loss (if any). J.P. conducted an impairment assessment as indicators suggested that an impairment may be possible. It was determined that the recoverable amount of the equipment is currently \$160,000. The estimated residual value remained unchanged.
  
- 2018 Dec 31 J.P. sold the equipment to Engaged Auto Company for proceeds of \$140,000.

**Instructions**

Prepare the necessary entries. (Show calculations.)

**Solution 10** (30 min.)

<u>2016</u>	Jan 1	Equipment .....	220,000	
		Accounts Payable .....		220,000
		(\$214,500 + \$1,500 + \$4,000)		
	Nov 3	Repairs Expense .....	1,700	
		Prepaid Insurance .....	4,200	
		Cash .....		5,900
	Dec 31	Depreciation Expense .....	20,000	
		Accumulated Depreciation - Equipment .....		20,000
		[(\$220,000 – \$20,000) ÷ 10]		
<u>2017</u>	Dec 31	Depreciation Expense .....	20,000	
		Accumulated Depreciation - Equipment .....		20,000

$$[(\$220,000 - \$20,000) \div 10]$$

	Dec 31	Impairment Loss .....	20,000	
		Accumulated Depreciation - Equipment .....		20,000
		Carrying value = \$220,000 – \$20,000 – \$20,000 = \$180,000		
		Impairment loss = \$180,000 – \$160,000 = \$20,000		
<u>2018</u>	Dec 31	Depreciation Expense .....	17,500	
		Accumulated Depreciation - Equipment .....		17,500
		[(\\$160,000 – \$20,000) ÷ (10 - 2 years)]		
	Dec 31	Cash .....	140,000	
		Accumulated Depreciation - Equipment .....	77,500	
		Loss on Disposal .....	2,500	
		Equipment .....		220,000
		Accumulated depreciation = \$20,000 + \$20,000 + \$20,000 + \$17,500 =		
\$77,500		Carrying value = \$220,000 - \$77,500 = \$142,500		
		Gain (Loss) on disposal = \$140,000 – \$142,500 = \$(2,500)		

Bloomcode: Analysis

Difficulty: Hard

Learning Objective: Calculate the cost of property, plant, and equipment.

Section Reference: Property, Plant, and Equipment

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

Learning Objective: Explain the factors that cause changes in periodic depreciation and calculate revised depreciation for property, plant, and equipment.

Section Reference: Revising Periodic Depreciation

Learning Objective: Demonstrate how to account for property, plant, and equipment disposals.

CPA: Financial Reporting

### Exercise 11

Roxy Gymnastics purchased new equipment for \$175,000. It is estimated that the equipment will have a \$15,000 residual value at the end of its 5-year useful service life. The double diminishing-balance method of depreciation will be used.

### Instructions

Prepare a depreciation schedule which shows the annual depreciation expense on the equipment for its 5-year life.

### Solution 11 (10 min.)

Double diminishing-balance rate =  $100\% \div 5 = 20\% \times 2 = 40\%$ .

Year	Carrying amount Beginning	×	Rate	=	Annual Depreciation Expense	End of Year	
	of Year					×	Rate
1	\$175,000	×	40%	=	\$70,000	×	\$105,000
2	105,000	×	40%	=	42,000	×	63,000

3	63,000	×	40%	25,200	137,200	37,800
4	37,800	×	40%	15,120	152,320	22,680
5	22,680	×	40%	7,680*	160,000	15,000

\*Adjusted to \$7,680 because ending carrying amount should not be less than the expected residual value of \$15,000.

Bloomcode: Application

Difficulty: Easy

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

### Exercise 12

Equipment acquired on October 1, 2017 at a cost of \$540,000 has an estimated useful life of 10 years. The residual value is estimated to be \$55,000 at the end of the equipment's useful life. The company has a December 31 year end.

### Instructions

Calculate the depreciation expense for December 31, 2017 and 2018 using:

- the straight-line method.
- the double diminishing-balance method.

### Solution 12 (10 min.)

#### a) Straight-line method

$$2017 \quad \frac{\$540,000 - \$55,000}{10 \text{ years}} = \$48,500 \times 3 \div 12 = \underline{\underline{\$12,125}}$$

$$2018 \quad \underline{\underline{\$48,500}}$$

#### b) Double diminishing-balance method

$$\text{Depreciation rate} = 100\% \div 10 \text{ years} = 10\% \times 2 = 20\%$$

$$2017 \quad \$540,000 \times 20\% \times 3 \div 12 = \underline{\underline{\$27,000}}$$

$$2018 \quad \$513,000 \times 20\% = \underline{\underline{\$102,600}}$$

Bloomcode: Application

Difficulty: Easy

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

### Exercise 13

On October 1, 2017 Welch Auto Rentals purchases a new automobile for \$30,000 to add to its fleet of rental cars. The automobiles are rented out on a short-term basis with rental fees calculated based on distance driven by the customer. Welch's policy is to sell and replace a car after the earlier of 3 years, or 75,000 kilometres. The average selling price of the used cars is

\$8,000. This particular car was driven 8,000 km in 2017, 39,000 km in 2018 and 21,000 km in 2019.

**Instructions**

- a) Calculate 2017 and 2018 depreciation expense under each of the following methods:
  - (i) Straight-line
  - (ii) Diminishing-balance using a 40% rate
  - (iii) Units-of-production
- b) Which method will best match the estimated pattern in which the asset’s economic benefits are expected to be consumed? Explain.

**Solution 13** (10 min.)

a)

	2017	2018
(i)	$(\$30,000 - \$8,000) \div 3 \times 3 \div 12 = \$1,833$	$(\$30,000 - \$8,000) \div 3 = \$7,333$
(ii)	$(\$30,000 \times 40\%) \times 3 \div 12 = \$3,000$	$(\$30,000 - \$3,000) \times 40\% = \$10,800$
(iii)	$(\$30,000 - \$8,000) \div 75,000\text{km} \times 8,000\text{km} = \$2,347$	$(\$30,000 - \$8,000) \div 75,000\text{km} \times 39,000\text{km} = \$11,440$

- b) Because revenue is based on units-of-production (kilometres driven), the method that will best match the estimated pattern in which the asset’s economic benefits are expected to be consumed is units-of-production.

Bloomcode: Application

Difficulty: Medium

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

**Exercise 14**

Sangria Boat Lifts purchased equipment on January 1, 2017 for \$96,000. It is estimated that the equipment will have a \$5,000 residual value at the end of its 8-year useful life. It is also estimated that the equipment will produce 100,000 units over its 8-year life.

**Instructions**

Answer the following independent questions.

- a) Calculate the amount of depreciation expense for the year ended December 31, 2017, using the straight-line method of depreciation.
- b) If 16,000 units of product are produced in 2017 and 36,000 units are produced in 2018, what is the carrying amount of the equipment at December 31, 2018 using the units-of-production depreciation method?
- c) If the company uses the double diminishing-balance method of depreciation, what will be the balance of the Accumulated Depreciation—Equipment account at December 31, 2019?

**Solution 14** (15 min.)

a) Straight-line method:  $\frac{\$96,000 - \$5,000}{8} = \$11,375 \text{ per year}$

b) Units-of-production method: 
$$\frac{\$96,000 - \$5,000}{100,000 \text{ units}} = \$0.91 \text{ per unit}$$

2017	16,000 units × \$0.91	= \$ 14,560
2018	36,000 units × \$0.91	= <u>32,760</u>
	Accumulated depreciation	= <u>\$47,320</u>

Cost of asset .....	\$96,000
Less: Accumulated depreciation..	<u>47,320</u>
Carrying amount.....	<u>\$48,680</u>

c) Double diminishing-balance method:

	<u>Carrying amount</u> <u>Beginning of Year</u>	×	<u>Diminishing-</u> <u>Balance Rate</u>	=	<u>Depreciation</u> <u>Expense</u>	<u>Accumulated</u> <u>Depreciation</u>
2017	\$96,000		25%		\$24,000	\$24,000
2018	72,000		25%		18,000	42,000
2019	54,000		25%		13,500	55,500

Bloomcode: Application

Difficulty: Medium

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

**Exercise 15**

The Hang-Out, a popular pizza restaurant, has a thriving delivery business. The Hang-Out has a fleet of three delivery automobiles. Prior to making the entry for this year's depreciation expense, the subsidiary ledger for the fleet is as follows:

Operated			Estimated Life	Accumulated Depreciation	Kilometres
<u>Car</u>	<u>Cost</u>	<u>Residual Value</u>	<u>in Kilometres</u>	<u>Beg. of the Year</u>	<u>During Year</u>
1	\$18,000	\$3,000	50,000	\$2,100	20,000
2	15,000	2,400	60,000	1,890	22,000
3	20,000	2,500	70,000	2,000	19,000

**Instructions**

- Determine the depreciation rates per kilometre for each car.
- Determine the depreciation expense for each car for the current year.
- Make one compound journal entry to record the annual depreciation expense for the fleet.

**Solution 15** (10 min.)

a) Car 1 
$$\frac{\$18,000 - \$3,000}{50,000 \text{ km.}} = \$0.30 \text{ per km.}$$

$$\text{Car 2} \quad \frac{\$15,000 - \$2,400}{60,000 \text{ km.}} = \$0.21 \text{ per km.}$$

$$\text{Car 3} \quad \frac{\$20,000 - \$2,500}{70,000 \text{ km.}} = \$0.25 \text{ per km.}$$

- b) Car 1 20,000 km. × \$0.30 = \$6,000  
 Car 2 22,000 km. × \$0.21 = \$4,620  
 Car 3 19,000 km. × \$0.25 = \$4,750

c) Depreciation Expense .....	15,370	
Accumulated Depreciation—Car 1 .....		6,000
Accumulated Depreciation—Car 2 .....		4,620
Accumulated Depreciation—Car 3 .....		4,750

Bloomcode: Application

Difficulty: Hard

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

### Exercise 16

The Bartallas Clinic purchased a new surgical laser for \$75,000. The estimated residual value is \$7,500. The laser has a useful life of four years and the clinic expects to use it 10,000 hours. It was used 1,600 hours in year 1; 2,100 hours in year 2; 3,400 hours in year 3; 2,900 hours in year 4.

### Instructions

- Calculate the annual depreciation for each of the four years under each of the following methods:
  - straight-line
  - units-of-production
- If you were the administrator of the clinic, which method would you deem as most appropriate? Justify your answer.
- Which method would result in the lowest reported profit in the first year? Which method would result in the lowest total reported profit over the four-year period?
- Which method would result in the lowest cash flow in Year 1? Over the life of the asset?

### Solution 16 (10 min.)

a) i) Straight-line method:  $\frac{\$75,000 - \$7,500}{4 \text{ years}} = \$16,875 \text{ per year}$

ii) Units-of-production method:  $\frac{\$75,000 - \$7,500}{10,000 \text{ hours}} = \$6.75/\text{hour}$

Year 1	$1,600 \times \$6.75 = \$10,800$
2	$2,100 \times \$6.75 = \$14,175$
3	$3,400 \times \$6.75 = \$22,950$
4	$2,900 \times \$6.75 = \$19,575$

	<u>Straight-line</u>	<u>Units-of-Production</u>
Year 1	\$ 16,875	\$ 10,800
Year 2	16,875	14,175
Year 3	16,875	22,950
Year 4	16,875	19,575
Total	<u>\$67,500</u>	<u>\$67,500</u>

- b) The units-of-production method can be justified based on the variable usage the laser will receive during its useful life.
- c) The straight-line method provides the highest depreciation expense for the first year, and therefore the lowest first year profit. Over the four-year period, both methods result in the same total depreciation expense (\$67,500) and, therefore, the same total profit.
- d) All three methods will result in the same cash flow in Year 1 and over the life of the asset. Recording depreciation expense does not affect cash flow. There is no Cash account involved in the entry to record depreciation (Dr. Depreciation Expense; Cr. Accumulated Depreciation). It is only an allocation of the capital cost to expense over an asset's useful life.

Bloomcode: Analysis

Difficulty: Medium

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

**Exercise 17**

Gordon's Garage purchased a specialized machine on April 1, 2017 for a total cost of \$254,000 from Scissor Manufactory. This machine is expected to become outdated and be replaced in 16 years at which time it will have a residual value of \$25,000.

**Instructions**

- a) What amount would be reported as depreciation expense for this machine on Gordon's income statement for December 31, 2017 and December 31, 2018 under the following depreciation methods? (rounded to two decimals)
  - i) Straight-line method
  - ii) Double diminishing-balance method
- b) What is the machine's carrying value at January 1, 2019 under both depreciation methods discussed in part a)?

**Solution 17 (15 min.)**

- a)
  - i) Straight-line method

Annual Depreciation =  $\$254,000 - \$25,000 / 16 \text{ years} = \$14,312.50$

2017:  $\$14,312.50 \times 9/12 \text{ months} = \underline{\$10,734.38}$

2018:  $\underline{\$14,312.50}$

ii) Double diminishing-balance method

Double Diminishing Rate =  $200\% / 16 = 12.5\%$

Year	Carrying amount Beginning Year	Depreciation Rate	Annual Depreciation	Accumulated Depreciation	Carrying amount
2017	\$254,000.00	12.5% x 9/12	\$23,812.50	\$23,812.50	\$230,187.50
2018	230,187.50	12.5%	28,773.44	52,585.94	201,414.06

b) Carrying amount, January 1, 2019:

Straight-line =  $\$254,000.00 - \$10,734.38 - \$14,312.50 = \underline{\$228,953.12}$

Double diminishing-balance =  $\underline{\$201,414.06}$

Bloomcode: Application

Difficulty: Medium

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

CPA: Financial Reporting

**Exercise 18**

Prairie Airlines purchased a 747 aircraft on January 1, 2016, at a cost of \$30,000,000. The estimated useful life of the aircraft is 20 years, with an estimated residual value of \$4,000,000. On January 1, 2018 the airline revises the total estimated useful life to 15 years with a revised residual value of \$3,000,000.

**Instructions**

- Calculate the depreciation and carrying amount at December 31, 2017 using the straight-line method and the double diminishing-balance method.
- Assuming the straight-line method is used, calculate the depreciation expense for the year ended December 31, 2018.

**Solution 18** (20 min.)

a) Straight-line method

Year	Depreciable Cost	Depreciation Rate	Annual Depreciation	Accumulated Depreciation	Carrying amount
2016	\$26,000,000	5%	\$1,300,000	\$1,300,000	\$28,700,000
2017	26,000,000	5%	1,300,000	2,600,000	27,400,000

Double diminishing-balance method

Year	Carrying amount Beginning Year	Depreciation Rate	Annual Depreciation	Accumulated Depreciation	Carrying amount
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2016	\$30,000,000	10%	\$3,000,000	\$3,000,000	\$27,000,000
2017	27,000,000	10%	2,700,000	5,700,000	24,300,000

b) Carrying amount, January 1, 2018 .....	\$27,400,000
Less: Revised residual value.....	<u>3,000,000</u>
Depreciable cost .....	<u>\$24,400,000</u>
Remaining useful life (15 years – 2 years).....	<u>13 yrs.</u>
Revised annual depreciation .....	<u>\$1,876,923</u>

Bloomcode: Application

Difficulty: Hard

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

Learning Objective: Explain the factors that cause changes in periodic depreciation and calculate revised depreciation for property, plant, and equipment.

Section Reference: Revising Periodic Depreciation

CPA: Financial Reporting

**Exercise 19**

Winningham Company sold the following two machines in 2017:

	<u>Machine A</u>	<u>Machine B</u>
Cost	\$92,000	\$43,000
Purchase date	July 1, 2013	Jan. 1, 2014
Useful life	8 years	8 years
Residual value	\$4,000	\$3,000
Depreciation method	Straight-line	Double diminishing-balance
Date sold	July 1, 2017	Aug. 1, 2017
Sales price	\$37,000	\$12,000

**Instructions**

Journalize all entries required to update depreciation and record the sales of the two assets in 2017. The company has recorded depreciation on the machine to December 31, 2016.

**Solution 19** (20 min.)

Jul 1	Depreciation Expense.....	5,500	
	Accumulated Depreciation—Machine A.....		5,500
	(\$92,000 – \$4,000) ÷ 8 × 6 ÷ 12 = \$5,500		
	Cash.....	37,000	
	Accumulated Depreciation—Machine A*.....	44,000	
	Loss on Disposal .....	11,000	
	Machine A.....		92,000
*2013	(\$92,000 – \$4,000) ÷ 8 × 6 ÷ 12	\$ 5,500	
2014	(\$92,000 – \$4,000) ÷ 8	11,000	
2015		11,000	

2016		11,000
2017	$(\$92,000 - \$4,000) \div 8 \times 6 \div 12$	<u>5,500</u>
Total accumulated depreciation at date of disposal		<u>\$44,000</u>

Aug 1	Depreciation Expense.....	2,645	
	Accumulated Depreciation—Machine B.....		2,645
	$(\$43,000 - \$24,860) \times 25\% \times 7 \div 12 = \$2,645$		
	Cash.....	12,000	
	Accumulated Depreciation—Machine B**.....	27,505	
	Loss on Disposal $(\$43,000 - \$39,505)$ .....	3,495	
	Machine B.....		43,000

**2014	$\$43,000 \times 25\%$	\$10,750
2015	$(\$43,000 - \$10,750) \times 25\%$	8,063
2016	$(\$43,000 - \$18,813) \times 25\%$	6,047
2017	$(\$43,000 - \$24,860) \times 25\% \times 7 \div 12$	<u>2,645</u>
Total accumulated depreciation at date of disposal		<u>\$27,505</u>

Bloomcode: Application

Difficulty: Hard

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

Learning Objective: Demonstrate how to account for property, plant, and equipment disposals.

CPA: Financial Reporting

### Exercise 20

Paper Products Inc. sold two machines in 2017. The following information pertains to the two machines:

Machine	Cost	Purchase Date	Useful Life	Residual Value	Depreciation Method	Date Sold	Sales Price
#1	\$86,000	7/1/13	5 yrs.	\$6,000	Straight-line	7/1/17	\$20,000
#2	\$50,000	7/1/16	5 yrs.	\$5,000	Double diminishing-balance	12/31/17	\$32,000

### Instructions

- Calculate the accumulated depreciation on each machine at the date of disposal.
- Prepare the journal entries in 2017 to record 2017 depreciation and the sale of each machine.

### Solution 20 (20 min.)

#### a) Machine #1

Year	Depreciable Cost	×	Depreciation Rate	=	Annual Depreciation	Accumulated Depreciation
2013	\$80,000		20%		\$ 8,000*	\$ 8,000
2014	√		√		16,000	24,000
2015	√		√		16,000	40,000
2016	√		√		16,000	56,000
2017	√		√		8,000*	64,000

\*One-half a year.

Machine #2

Year	Carrying amount Beginning of Year	×	DDB Rate	Annual Depreciation	Accumulated Depreciation
2016	\$50,000		40%	\$10,000*	\$10,000
2017	40,000		40%	16,000	26,000

\*One-half a year.

	Machine 1	Machine 2
b) Depreciation Expense.....	8,000	16,000
Accumulated Depreciation .....	8,000	16,000
Cash .....	20,000	32,000
Loss on Sale of Equipment .....	2,000*	-0-
Accumulated Depreciation .....	64,000	26,000
Equipment.....	86,000	50,000
Gain on Sale of Equipment.....	-0-	8,000**

\*NBV: \$86,000 – \$64,000 = \$22,000; Proceeds – NBV: \$20,000 – \$22,000 = -\$2,000 [a loss]

\*\*NBV: \$50,000 – \$26,000 = \$24,000; Proceeds – NBV: \$32,000 – \$24,000 = \$8,000 [a gain]

Bloomcode: Application

Difficulty: Hard

Learning Objective: Apply depreciation methods to property, plant, and equipment.

Section Reference: Depreciation

Learning Objective: Demonstrate how to account for property, plant, and equipment disposals.

CPA: Financial Reporting

**Exercise 21**

Mendelsohn Company purchased a machine on January 1, 2017 at a cost of \$48,000. The machine is expected to have an estimated residual value of \$3,000 at the end of its 5-year life. The company’s new accountant has used the double diminishing-balance method to depreciate the machine at December 31, 2017. However, the company has a policy of using the straight-line method to depreciate equipment. Profit for the year ended December 31, 2017 was \$55,000 as the result of depreciating the machine incorrectly.

**Instructions**

Using the method of depreciation which the company normally follows, prepare the correcting entry and determine the corrected profit. (Show calculations.)

**Solution 21** (10 min.)

Depreciation taken:  $(\$48,000 - 0) \times 40\% = \dots\dots\dots \$19,200$   
 Correct depreciation:  $(\$48,000 - \$3,000) \div 5 \text{ yrs.} = \underline{\underline{9,000}}$   
 Overstatement of depreciation in 2017 =  $\dots\dots\dots \underline{\underline{\$10,200}}$

Accumulated Depreciation .....	10,200	
Depreciation Expense .....		10,200

Correct profit:

Profit as reported.....	\$55,000
Add: Overstatement of depreciation expense..	<u>10,200</u>
Correct profit .....	<u>\$65,200</u>

Bloomcode: Application

Difficulty: Easy

Learning Objective: Explain the factors that cause changes in periodic depreciation and calculate revised depreciation for property, plant, and equipment.

Section Reference: Revising Periodic Depreciation

CPA: Financial Reporting

**Exercise 22**

Equipment was acquired on January 1, 2015, at a cost of \$90,000. The equipment was originally estimated to have a residual value of \$5,000 and an estimated life of 10 years. Depreciation has been recorded through December 31, 2016, using the straight-line method. On January 1, 2017 the estimated residual value was revised to \$6,000 and the useful life was revised to a total of 8 years.

**Instructions**

Determine the depreciation expense for 2017.

**Solution 22** (5 min.)

Calculate the carrying amount at the time of the revision:

$$\frac{\$90,000 - \$5,000}{10 \text{ years}} = \$8,500 \text{ annual depreciation expense}$$

$$2 \text{ years have been depreciated: } \$8,500 \times 2 = \$17,000$$

$$\text{Carrying amount at the time of the revision: } \$90,000 - \$17,000 = \$73,000$$

Calculate the revised annual depreciation:

$$\frac{\$73,000 - \$6,000}{6 \text{ years remaining}} = \$11,167 \text{ revised annual depreciation}$$

The depreciation expense for 2017 is \$11,167.

Bloomcode: Application

Difficulty: Easy

Learning Objective: Explain the factors that cause changes in periodic depreciation and calculate revised depreciation for property, plant, and equipment.

Section Reference: Revising Periodic Depreciation

CPA: Financial Reporting

**Exercise 23**

On January 1, 2016, Katsumi Company purchased and installed a telephone system at a cost of \$20,000. The equipment was expected to last five years with a residual value of \$3,000. On January 1, 2017 more telephone equipment was purchased to tie-in with the current system for \$8,000. The new equipment is expected to have a useful life of four years. Through an error, the new equipment was debited to Telephone Expense. Katsumi Company uses the straight-line method of depreciation.

### Instructions

Prepare a schedule showing the effects of the error on Telephone Expense, Depreciation Expense, and profit for each year and in total beginning in 2017 through the useful life of the new equipment.

Year	<u>Telephone Expense</u> Overstated (Understated)	<u>Depreciation Expense</u> Overstated (Understated)	<u>Profit</u> Overstated (Understated)
—			
2017			
2018			
2019			
2020			

**Solution 23** (25 min.)

Year	<u>Telephone Expense</u> Overstated (Understated)	<u>Depreciation Expense</u> Overstated (Understated)	<u>Profit</u> Overstated (Understated)
2017	\$8,000	\$(2,000)	\$(6,000)
2018		(2,000)	2,000
2019		(2,000)	2,000
2020		<u>(2,000)</u>	<u>2,000</u>
Total	<u>\$8,000</u>	<u>\$(8,000)</u>	<u>\$ -0-</u>

Bloomcode: Analysis

Difficulty: Medium

Learning Objective: Explain the factors that cause changes in periodic depreciation and calculate revised depreciation for property, plant, and equipment.

Section Reference: Revising Periodic Depreciation

CPA: Financial Reporting

**Exercise 24**

Harrison Rentals purchased an apartment building in 2009. At the time, the building was expected to have a useful life of 25 years with a residual value of \$100,000, during which time it was projected to generate annual rentals of \$30,000 (adjusted for inflation). The building's original cost was \$500,000.

At January 1, 2017 the accumulated depreciation balance on this building was \$128,000, and 2017 depreciation has been calculated as \$16,000. Harrison has a December 31 year end.

During January 2017 Harrison had the following events and transactions related to the building. All transactions are for cash.

1. Painted all the walls in the common areas at a cost of \$8,000.
2. Replaced the electrical wiring in three suites due to safety concerns at a cost of \$4,500.
3. Replaced all of the linoleum flooring in the suites with hardwood, installed in-suite laundry facilities in each unit, and made other improvements at total cost of \$120,000. As a result, the annual rental revenue has been doubled.
4. Completed structural repairs to the building at a cost of \$100,000. As a result of this work the building life is expected to be 10 years longer than the original estimate. The residual value estimate has been revised to \$134,000.

**Instructions**

- a) Calculate the carrying amount of the building on December 31, 2017. Provide explanations for any increases to building cost.
- b) Record the 2018 depreciation expense using the straight-line basis, assuming that the increased rental rates go into effect January 1, 2018.

**Solution 24** (15 min.)

a)

Building cost, balance January 1, 2017 .....	\$500,000	
Add: Item 3 (new flooring and laundries are added to the cost because the increase the building's revenue generating capacity).....	120,000	
Item 4 (structural repairs are added to the cost because this extends the useful life of the building).....	<u>100,000</u>	\$720,000
Less: Accumulated depreciation (\$128,000 + 16,000).....		.. <u>144,000</u>
Carrying amount, December 31, 2017 .....		.. <u>\$576,000</u>

b)

Revised depreciable cost (\$576,000 – \$134,000)	\$442,000	
Remaining life (from Jan 1, 2018) = (25 – 9 + 10)	26	
2018 depreciation expense = \$442,000 ÷ 26	\$17,000	
Depreciation Expense .....	17,000	
Accumulated Depreciation—Building.....		17,000

Bloomcode: Application

Difficulty: Hard

Learning Objective: Explain the factors that cause changes in periodic depreciation and calculate revised depreciation for property, plant, and equipment.

CPA: Financial Reporting

**Exercise 25**

At January 1, 2017 Penner Auto Repairs owned the following assets:

Asset	Building	Automotive	Computers	Furniture
Date purchased	Jan 1, 2010	Jan 1, 2016	Jan 1, 2016	Jan 1, 2010
Original cost	\$500,000	\$45,000	\$10,000	\$20,000
Accumulated depreciation				
Depreciation method	Straight-line	Diminishing-balance	Straight-line	Straight-line
Depreciation rate	40 years	45%	3 years	15 years
Estimated residual value	\$200,000	not applicable	\$1,000	\$4,000
Estimated remaining life (as of January 1, 2017)	33 years	not applicable	2 years	8 years

Prior to recording depreciation expense for 2017, Penner undertook a review of the assets' remaining life and value and determined that the following changes are warranted based on currently available information:

Building: No changes

Automotive: No changes

Computers: Obsolete

Furniture: Remaining life will be 10 years with \$5,000 residual value.

**Instructions**

Calculate 2017 depreciation on each of these assets, taking the new information into account.

**Solution 25 (20 min.)**

Building

Cost .....	\$500,000
Residual value .....	200,000
Depreciable value .....	300,000
Estimated life .....	40 years
2017 depreciation expense ( $\$300,000 \div 40$ ) .....	\$ 7,500

Automobile

Cost .....	\$45,000
2019 depreciation ( $\$45,000 \times 45\%$ ).....	20,250
Carrying amount Jan 1, 2017 .....	24,750
Depreciation rate.....	45%
2017 depreciation expense ( $\$24,750 \times 45\%$ ) .....	\$11,138

Computers

Cost .....	\$10,000
Accumulated depreciation Jan 1, 2017 ( $\$10,000 - \$1,000$ ) $\div 3 \times 1$ .....	3,000
Carrying amount Jan 1, 2017 .....	7,000
Revised residual value .....	-0-
Revised depreciable cost .....	7,000
Remaining life .....	0 years
2017 depreciation expense ( $\$7,000 \div 1$ year) .....	\$ 7,000

Furniture

Cost .....	\$20,000
Accumulated depreciation Jan 1/17 ( $\$20,000 - \$4,000$ ) $\div 15 \times 7$ ..	7,467
Carrying amount Jan 1/17 .....	12,533
Revised residual value .....	5,000
Revised depreciable cost .....	7,533
Remaining life .....	10 years
2017 depreciation expense .....	\$ 753

Bloomcode: Application

Difficulty: Hard

Learning Objective: Explain the factors that cause changes in periodic depreciation and calculate revised depreciation for property, plant, and equipment.

CPA: Financial Reporting

**Exercise 26**

Redwood Company performs an assessment annually for possible impairment losses and has gathered the following information pertaining to selected assets at December 31, 2017:

Asset	Building	Equipment	Computers	Furniture
Original cost	\$400,000	\$245,000	\$100,000	\$20,000
Accumulated depreciation	220,000	16,000	20,000	13,000
Recoverable amount	550,000	225,000	\$70,000	\$8,000

Impairment loss (if any)	?	?	?	?
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**Instructions**

Determine if the assets identified by Redwood are impaired and prepare any necessary adjusting entries to record the impairments.

**Solution 26** (10 min.)

Asset	Building	Equipment	Computers	Furniture
Original cost	\$400,000	\$245,000	\$100,000	\$20,000
Accumulated depreciation	220,000	16,000	20,000	13,000
Recoverable amount	550,000	225,000	\$70,000	\$8,000
Impairment loss (if any)	0	4,000	10,000	0

2017	Dec 31	Impairment Loss .....	14,000	
		Accumulated Depreciation—Equipment.....		4,000
		Accumulated Depreciation—Computers .....		10,000
		Carrying value = \$220,000 – \$20,000 – \$20,000 = \$180,000		
		Impairment loss = \$180,000 – \$160,000 = \$20,000		

Bloomcode: Application

Difficulty: Medium

Learning Objective: Explain the factors that cause changes in periodic depreciation and calculate revised depreciation for property, plant, and equipment.

CPA: Financial Reporting

**Exercise 27**

The following assets were sold by DNC Company during the 2017 fiscal year. The company's year end is December 31.

Asset	Vehicle	Computer	Furniture
Original cost	\$60,000	\$8,000	\$18,000
Accumulated depreciation (January 1, 2017)	\$35,000	\$7,000	\$7,000
Depreciation method	Diminishing-balance	Straight-line	Straight-line
Depreciation rate / years remaining	25%	2 years	8 years
Estimated residual value	not applicable	not applicable	not applicable
Selling price	\$22,500	\$708	\$14,000
Date of sale in 2017	April 1	August 1	October 31

**Instructions**

Compute the gain or loss on disposal for each asset sold and prepare any necessary journal entries to record the disposals for DNC. (Round your answers to the nearest dollar)

**Solution 27** (15 min.)

Apr 1	Depreciation Expense .....	1,563	
	Accumulated Depreciation—Vehicle .....		1,563
	(\$60,000 – \$35,000) × 25% × 3/12 = \$1,563		

	Cash .....	22,500	
	Accumulated Depreciation—Vehicle (\$35,000 + \$1,563) ...	36,563	
	Loss on Disposal .....	3,495	
	Vehicle.....		60,000
Aug 1	Depreciation Expense.....	292	
	Accumulated Depreciation—Computer.....		292
	[((\$8,000 – \$7,000) / 2 x 7/12) = \$292		
	Cash .....	708	
	Accumulated Depreciation—Computer (\$7,000 + \$292) ...	7,292	
	Computer.....		8,000
Oct 31	Depreciation Expense.....	1,146	
	Accumulated Depreciation—Furniture. ....		1,146
	(\$18,000 – \$7,000) / 8 x 10/12 = \$1,563		
	Cash .....	14,000	
	Accumulated Depreciation—Furniture (\$7,000 + \$1,146)...	8,146	
	Gain on Disposal .....		4,146
	Furniture .....		18,000

Bloomcode: Application

Difficulty: Medium

Learning Objective: Demonstrate how to account for property, plant, and equipment disposals.

Section Reference: Disposal of Property, Plant, and Equipment

CPA: Financial Reporting

### Exercise 28

- Lui Company purchased equipment in 2007 for \$80,000 and estimated an \$8,000 residual value at the end of the equipment's 10-year useful life. At December 31, 2016, there was \$50,400 in the Accumulated Depreciation account for this equipment using the straight-line method of depreciation. On March 31, 2017 the equipment was sold for \$21,000. Prepare the appropriate journal entries to remove the equipment from the books of Lui Company on March 31, 2017.
- Gagne Company sold a delivery truck for \$11,000. The delivery truck originally cost \$25,000 in 2013 and \$6,000 was spent on a major overhaul in 2016 (charged to Delivery Truck account). Accumulated Depreciation on the delivery truck to the date of disposal was \$20,000. Prepare the appropriate journal entry to record the disposition of the delivery truck.
- Crenshaw Company sold office equipment that had a carrying amount of \$4,500 for \$6,000. The office equipment originally cost \$15,000 and it is estimated that it would cost \$19,000 to replace the office equipment. Prepare the appropriate journal entry to record the disposition of the office equipment.

### Solution 28 (15 min.)

1.	Depreciation Expense .....	1,800	
	Accumulated Depreciation—Equipment .....		1,800
	To record depreciation expense for the first 3 months of		

2017.  $(\$72,000 \div 10 \times 3 \div 12) = \$1,800$

Cash .....	21,000	
Loss on Disposal.....	6,800	
Accumulated Depreciation—Equipment (\$50,400 + \$1,800) .....	52,200	
Equipment.....		80,000
To record sale of equipment at a loss		
2. Cash .....	11,000	
Accumulated Depreciation—Delivery Truck .....	20,000	
Delivery Truck (\$25,000 + \$6,000) .....		31,000
To record disposition on delivery truck at carrying amount		
3. Cash .....	6,000	
Accumulated Depreciation—Office Equipment.....	10,500	
Office Equipment.....		15,000
Gain on Disposal.....		1,500
To record disposal of office equipment at a gain		

Bloomcode: Application

Difficulty: Hard

Learning Objective: Demonstrate how to account for property, plant, and equipment disposals.

Section Reference: Disposal of Property, Plant, and Equipment

CPA: Financial Reporting

**Exercise 29**

Zedel Delivery Services has a December 31, 2017 year end. On January 1, 2017 Zedel has a delivery van with a cost of \$35,000 and accumulated depreciation of \$12,000. The van was expected to have a residual value of \$5,000 and a useful life of 5 years. Zedel uses straight-line depreciation. Zedel plans to replace its delivery van on April 1, 2017 and is considering two alternatives.

1. Zedel has been offered \$14,000 for the old van. If Zedel accepts this offer, Zedel would then purchase a replacement for \$50,000 cash.
2. Trade the old van for a new one. The dealer will allow a \$22,000 trade-in allowance on the old van, and Zedel will have to pay additional cash of \$28,000.

**Instructions**

- a) Record the updated depreciation on the old van to April 1, 2017.
- b) Record the disposal of the van under each of the two alternatives.
- c) Which alternative do you recommend and why?

**Solution 29** (15 min.)

- a) Depreciation Jan 1 – Apr 1, 2017:  
 $(\$35,000 - \$5,000) \div 5 \times 3 \div 12 = \$1,500$

Apr 1 Depreciation Expense .....	1,500	
Accumulated Depreciation—Van.....		1,500

- b)

Option 1:

Cash .....	14,000	
Accumulated Depreciation—Van (\$12,000 + 1,500).....	13,500	
Loss on Sale of Van .....	7,500	
Van (old) .....		35,000
 Van (new) .....	50,000	
Cash .....		50,000

Option 2:

Van (new) (\$22,000 + \$28,000).....	50,000	
Accumulated Depreciation—Van.....	13,500	
Gain on Sale of Van .....		500
Van (old) .....		35,000
Cash .....		28,000

- c) Cash required for alternative #1 (\$50,000 – \$14,000) = \$36,000.  
 Cash required for alternative #2 = \$28,000.

Because the second option requires less cash to acquire the same van, it is the recommended option.

Bloomcode: Application

Difficulty: Medium

Learning Objective: Demonstrate how to account for property, plant, and equipment disposals.

Section Reference: Disposal of Property, Plant, and Equipment

CPA: Financial Reporting

**Exercise 30**

Presented below are selected transactions for Mohamad Company for 2017:

- Jan 1 Received \$3,000 scrap value on retirement of machinery that was purchased on January 1, 2006. The machine cost \$80,000 on that date, and had an estimated useful life of 10 years with no residual value.
- Apr 30 Sold a printing machine for \$50,000 that was purchased on January 1, 2014. The printer cost \$90,000, and had an estimated useful life of 5 years with no residual value.
- Dec 31 Disposed of a business automobile that was purchased on September 1, 2012. The car cost \$20,000 and was depreciated on an 8-year useful life with a residual value of \$800.

**Instructions**

Journalize all entries required as a result of the above transactions. Mohamad Company uses the straight-line method of depreciation and has recorded depreciation to December 31, 2016.

**Solution 30** (15 min.)

Jan 1 Cash .....	3,000	
Accumulated Depreciation—Machinery.....	80,000	
Machinery .....		80,000
Gain on Disposal.....		3,000

Apr 30	Depreciation Expense .....	6,000	
	Accumulated Depreciation—Machinery .....		6,000
	$\$90,000 \div 5 = \$18,000 \times 4 \div 12 = \$6,000$		
	Cash .....	50,000	
	Accumulated Depreciation—Machinery .....	60,000	
	$(\$18,000 \times 3) + (\$18,000 \times 4 \div 12)$		
	Printing Machine .....		90,000
	Gain on Disposal $(\$50,000 - \$30,000)$ .....		20,000
Dec 31	Depreciation Expense .....	2,400	
	Accumulated Depreciation—Auto .....		2,400
	$(\$20,000 - \$800) \div 8 = \$2,400$		
	Accumulated Depreciation—Auto .....	12,800	
	$(\$2,400 \times 5) + (\$2,400 \times 1 \div 3)$		
	Loss on Disposal .....	7,200	
	Automobile .....		20,000

Bloomcode: Application

Difficulty: Medium

Learning Objective: Demonstrate how to account for property, plant, and equipment disposals.

Section Reference: Disposal of Property, Plant, and Equipment

CPA: Financial Reporting

**Exercise 31**

On January 1, 2017 Marsh Industries invests \$2,000,000 in land that includes a stand of timber and the rights to cut the timber. The property is expected to yield 50,000 cubic metres of timber. After the amount of lumber permitted by law has been cut, Marsh expects to be able to sell the land for \$400,000 less \$150,000 that must be spent on reforestation. Marsh invests a further \$300,000 in equipment which is expected to last for the same number of units as the property yields, with no residual value.

**Instructions**

- a) Using the units-of-production method, calculate depletion/depreciation for 2017 on both the timber investment and for the equipment, assuming that 12,000 cubic metres are sawn in the year.
- b) Explain why the units-of-production method is considered the most appropriate method for depletion of natural resources.

**Solution 31** (10 min.)

a) Depletion of timber:  
 $(\$2,000,000 - [\$400,000 - \$150,000]) \div 50,000 = \$35$  per cubic metre;  $\$35 \times 12,000 = \$420,000$

Depreciation of equipment:  
 $\$300,000 \div 50,000 = \$6$  per cubic metre;  $\$6 \times 12,000 = \$72,000$

- b) The units-of-production method is considered appropriate because the cost of the asset is

matched exactly with the asset being physically used up. This will also result in a good matching of expenses with revenues, which are also determined on a “per unit” basis.

Bloomcode: Application

Difficulty: Medium

Learning Objective: Record natural resource transactions and calculate depletion.

Section Reference: Natural Resources

CPA: Financial Reporting

**Exercise 32**

Johansan Mining Company purchased a mine for \$80 million which is estimated to have 250,000 tonnes of ore and a residual value of \$10 million. In the first year 50,000 tonnes of ore are extracted and sold. In the second year 150,000 tonnes of ore are extracted but only 125,000 tonnes are sold.

**Instructions**

- a) Prepare the journal entry to record depletion expense for the first year and the second year.
- b) What amount and in what account are the tonnes of ore not sold reported?

**Solution 32** (10 min.)

- a) Calculation of the depletion expense/tonne of ore:  
 $(\$80,000,000 - \$10,000,000) \div 250,000 \text{ tonnes} = \$280 \text{ per tonne}$

First Year: 50,000 tonnes × \$280 = \$14,000,000

Inventory (Depletion Expense).....	14,000,000	
Accumulated Depletion .....		14,000,000

- b) Second Year: 150,000 tonnes × \$280 = \$42,000,000
- |                                    |            |            |
|------------------------------------|------------|------------|
| Inventory (Depletion Expense)..... | 42,000,000 |            |
| Accumulated Depletion .....        |            | 42,000,000 |

Note: Depletion is recorded for the full amount extracted.

The ore that is extracted and not sold remains in an Inventory account in the current assets section of the balance sheet. In this case \$7,000,000 (25,000 × \$280) should be reported as inventory. The amount related to the ore that is extracted and sold [ $125,000 \times \$280$ ] will be transferred to the cost of goods sold account along with all the other costs of extracting the ore.

Bloomcode: Application

Difficulty: Easy

Learning Objective: Record natural resource transactions and calculate depletion.

Section Reference: Natural Resources

CPA: Financial Reporting

**Exercise 33**

McGuinness Mining Company purchased land containing an estimated 15 million tonnes of ore at a cost of \$5,400,000. The land without the ore is estimated to be worth \$600,000. The company expects to operate the mine for 10 years. Buildings costing \$800,000 are erected on

the site and are expected to last for 25 years. Equipment costing \$1,000,000 with an estimated life of 12 years is installed. The buildings and the equipment possess no residual value after the mine is closed. During the first year of operations, the mining company mined and sold 2 million tonnes of ore.

**Instructions**

- a) Calculate the depreciation/depletion cost per tonne of the mine.
- b) Calculate the depreciation/depletion expense for the first year on the mine.
- c) Calculate the appropriate first year's depreciation expense for the buildings.
- d) Calculate the appropriate first year's depreciation expense for the equipment.

**Solution 33** (20 min.)

- a) Depletion cost per tonne:  
 $(\$5,400,000 - \$600,000) \div 15 \text{ million tonnes of ore} = \$0.32 \text{ per tonne}$
- b)  $2,000,000 \text{ tonnes} \times \$0.32 = \$640,000$
- c) The appropriate useful life is the shorter of the life of the mine or the life of the buildings. In this case, 10 years is the appropriate useful life ( $\$800,000 \div 10 \text{ years} = \$80,000$ ).
- d) Same reasoning as c)  $\$1,000,000 \div 10 \text{ years} = \$100,000$

Bloomcode: Application

Difficulty: Hard

Learning Objective: Record natural resource transactions and calculate depletion.

Section Reference: Natural Resources

CPA: Financial Reporting

**Exercise 34**

Kewais Company invested \$6 million for the rights to explore and extract natural resources from land in Ukraine. The company estimated that a total of 1.5 million tonnes of ore would be extracted from the property. The company extracted 50,000 tonnes of ore Year 1, 110,000 tonnes of ore Year 2, and 205,000 tonnes of ore Year 3.

**Instructions**

Prepare the necessary journal entries to record depletion expense in Year 1, Year 2 and Year 3.

**Solution 34** (5 min.)

Depletion rate =  $\$6,000,000 / 1,500,000 \text{ tonnes} = \$4 \text{ per tonne of ore extracted}$

Year 1	Inventory (\$4 x 50,000) .....	200,000	
	Accumulated Depletion—Natural Resource Property ....		200,000
Year 2	Inventory (\$4 x 110,000) .....	440,000	
	Accumulated Depletion—Natural Resource Property ....		440,000
Year 3	Inventory (\$4 x 205,000) .....	820,000	
	Accumulated Depletion—Natural Resource Property ....		820,000

Bloomcode: Application

Difficulty: Easy

Learning Objective: Record natural resource transactions and calculate depletion.

Section Reference: Natural Resources

CPA: Financial Reporting

**Exercise 35**

Below are several transactions for McLaughlin Inc.:

1. Timber rights were purchased on a tract of land for \$600,000. The timber is estimated at 2,800 cubic metres. During the current year, 180 cubic metres of timber were cut and sold.
2. A company purchased another company on July 1 and recorded goodwill of \$400,000.
3. Costs of \$18,000 were incurred on January 1 to obtain a patent. Shortly thereafter, \$9,000 was spent in legal costs to successfully defend the patent against competitors. The patent has a legal life of 20 years and an estimated 9-year useful life.
4. The company acquired a trademark for the cost of \$25,000. The trademark has 20 years until it expires and then it can be renewed for another 20 years for the cost of \$25.

**Instructions**

For each of the unrelated transactions, determine the amount of the depreciation/depletion expense for the current year and present the adjusting entries required to record each expense at year end.

**Solution 35** (10 min.)

1. Calculation of depletion/cubic metre:

$$\$600,000 \div 2,800 = \$214.29/\text{cubic metre}$$

$$180 \times \$214.29 = \$38,572.$$

Inventory.....	38,572	
Accumulated Depletion .....		38,572

2. No entry. Goodwill is not amortized.

3. Legal costs to successfully defend a patent are capitalized.

Depreciation Expense.....	3,000	
Accumulated Depreciation—Patent .....		3,000
(\$27,000 ÷ 9 years = \$3,000)		

4. No amortization is necessary. The trademark can be renewed for a small cost thus it may be treated as if it has indefinite life.

Bloomcode: Application

Difficulty: Medium

Learning Objective: Record natural resource transactions and calculate depletion.

Section Reference: Natural Resources

Learning Objective: Identify the basic accounting issues for intangible assets and goodwill.

Section Reference: Intangible Assets and Goodwill

CPA: Financial Reporting

**Exercise 36**

During the current year, Lui Company incurred several expenditures:

1. Spent \$50,000 in legal costs in a patent defence suit. The patent was unsuccessfully defended.
2. Purchased a trademark from another company. The trademark can be renewed indefinitely. Lui Company expected the trademark to contribute to revenue indefinitely.
3. Lui Company acquires a patent for \$2,000,000. The company selling the patent has spent \$1,000,000 on the research and development of it. The patent has a remaining legal life of 15 years and an estimated 5-year useful life.
4. Lui Company is spending considerable time and money in developing a different patent for another product. So far \$3,000,000 has been spent this year on research. Lui Company is very confident it will obtain this patent in the next few years.

### Instructions

Briefly explain whether the expenditures listed above should be recorded as an operating expense or as an intangible asset. If you view the expenditure as an intangible asset, indicate whether the asset should be amortized or not, and if so, the number of years over which it should be amortized. Explain your answer.

### Solution 36 (10 min.)

1. Operating Expense. Only successful patent defence costs can be capitalized.
2. Intangible Asset. Trademarks are renewable. Since Lui Company expects to use the trademark indefinitely, no depreciation is recorded.
3. Intangible Asset. The patent cost of \$2,000,000 should be amortized over its expected remaining useful life of 5 years since this is shorter than the remaining legal life of 15 years.
4. Operating Expense. Research costs should be expensed when incurred.

Bloomcode: Analysis

Difficulty: Hard

Learning Objective: Identify the basic accounting issues for intangible assets and goodwill.

Section Reference: Intangible Assets and Goodwill

CPA: Financial Reporting

### Exercise 37

1. A company purchased a patent on January 1, 2017 for \$2,500,000. The patent's legal life is 20 years but the company estimates that the patent's useful life will only be 5 years from the date of acquisition. On June 30, 2017 the company paid legal costs of \$162,000 in successfully defending the patent in an infringement suit. Prepare the journal entry to amortize the patent at year end on December 31, 2017.
2. Walker Company purchased a franchise from the Tasty Food Company for \$400,000 on January 1, 2017. The franchise is for an indefinite time period and gives Walker Company the exclusive rights to sell Tasty Wings in a particular territory. Prepare the journal entry to record the acquisition of the franchise and any necessary adjusting entry at year end on December 31, 2017.
3. Chernomyrdin Company incurred research costs of \$200,000 and successful development costs of \$500,000 in 2017 in developing a new product that the company was able to

patent. The company expects the product to be useful for 10 years. Prepare the necessary journal entries during 2017 to record these events and any adjustments at year end on December 31, 2017.

**Solution 37** (15 min.)

1. December 31, 2017		
Amortization Expense .....	518,000	
Accumulated Amortization-Patent .....		518,000
To record patent depreciation		
\$2,500,000 ÷ 5 years .....	\$500,000	
\$162,000 ÷ 54 months = \$3,000 × 6 months .....	<u>18,000</u>	
		<u>\$518,000</u>
2. January 1, 2017		
Franchise .....	400,000	
Cash .....		400,000
To record acquisition of Tasty Food franchise		
December 31, 2017		
Indefinite life, no amortization necessary; no entry.		
3. 2017		
Research Expense .....	200,000	
Cash .....		200,000
To record research expense for the current year		
Patent .....	500,000	
Cash .....		500,000
To capitalize development costs		
December 31, 2017		
Amortization Expense (\$500,000 ÷ 10 years) .....	50,000	
Accumulated Amortization—Patent .....		50,000
To record amortization of successful development costs relating to the patent		

Bloomcode: Application

Difficulty: Medium

Learning Objective: Identify the basic accounting issues for intangible assets and goodwill.

Section Reference: Intangible Assets and Goodwill

CPA: Financial Reporting

**Exercise 38**

Identify whether the following intangible assets are considered finite life (F) or indefinite life (I).

\_\_\_ Franchise

\_\_\_ Patents

\_\_\_ Goodwill

\_\_\_ Development Costs

\_\_\_ Trademarks

\_\_\_ Licence

\_\_\_ Copyrights

**Solution 38** (5 min.)

\_\_I\_\_ Franchise

\_\_F\_\_ Patents

\_\_I\_\_ Goodwill

\_\_F\_\_ Development Costs

\_\_I\_\_ Trademarks

\_\_I\_\_ Licence

\_\_F\_\_ Copyrights

Bloomcode: Knowledge

Difficulty: Easy

Learning Objective: Identify the basic accounting issues for intangible assets and goodwill.

Section Reference: Intangible Assets and Goodwill

CPA: Financial Reporting

**Exercise 39**

During 2017 Blackmud Research had the following transactions for cash. This is Blackmud's first year of operations.

- Mar 1 Registered a new patent, with a legal life of 20 years, at a cost of \$30,000.
- Jun 30 Incurred research costs of \$68,000.
- Aug 1 Incurred development costs of \$50,000 related to a product that meets the standards required for capitalization of costs. The costs are expected to provide commercial benefits for 5 years.
- Aug 31 Purchased a trademark with an indefinite life for \$102,000.
- Nov 1 Purchased software copyright for \$300,000. The copyright has a remaining legal life of 30 years, and the related software is expected to produce revenue for 6 years.

**Instructions**

- a) Record the transactions.
- b) Prepare the section of the December 31, 2017 balance sheet of Blackmud Research that reports intangible assets. Show calculations where applicable.

**Solution 39** (20 min.)

a)			
Mar 1	Patent .....	30,000	
	Cash .....		30,000
Jun 30	Research Expense .....	68,000	
	Cash .....		68,000
Aug 1	Development Costs .....	50,000	
	Cash .....		50,000
Aug 31	Trademark .....	102,000	
	Cash .....		102,000
Nov 1	Copyright .....	300,000	
	Cash .....		300,000

b)

**BLACKMUD RESEARCH**  
**Balance Sheet (partial)**  
**December 31, 2017**

Intangible assets (non-current assets)		
Finite-life intangible assets (\$30,000 + 50,000 + 300,000) .....	\$ 380,000	
Less: Accumulated amortization* .....	<u>13,750</u>	\$ 366,250
Indefinite-life intangible assets .....		<u>102,000</u>
Total intangible assets .....		<u>\$ 468,250</u>

Amortization:

Patent = (\$30,000 ÷ 20 x 10 ÷ 12) .....	\$ 1,250
Development costs (\$50,000 ÷ 5 x 5 ÷ 12) .....	4,167
Copyright (\$300,000 ÷ 6 x 2 ÷ 12) .....	<u>8,333</u>
Total .....	<u>\$ 13,750</u>

Bloomcode: Application

Difficulty: Medium

Learning Objective: Identify the basic accounting issues for intangible assets and goodwill.

Section Reference: Intangible Assets and Goodwill

Learning Objective: Illustrate the reporting and analysis of long-lived assets.

Section Reference: Statement Presentation and Analysis

CPA: Financial Reporting

**Exercise 40**

The following information is available from the audited financial statements of Molson Coors Brewing Company and Big Rock Breweries Income Trust for their 2017 year ends.

	Molson/Coors (in millions of US dollars)	Big Rock Breweries (in thousands of Cdn dollars)
Net revenue	\$5,844	\$38,701
Profit	\$373	\$8,380
Total assets, ending	\$11,603	\$42,170

Total assets, beginning	\$11,799	\$41,786
-------------------------	----------	----------

**Instructions**

- a) Calculate both companies' asset turnover and return on assets.
- b) Compare the companies' effectiveness in using their assets to produce revenue and profit.

**Solution 40** (10 min.)

a)

	Molson/Coors	Big Rock
Asset turnover	= \$ 5,844 ÷ [(11,603 + 11,799)÷2] = 0.50	= \$ 38,701 ÷ [(42,170 + 41,786)÷2] = 0.92
Return on assets	= \$ 373 ÷ [(11,603 + 11,799)÷2] = 3.2%	= \$ 8,380 ÷ [(42,170 + 41,786)÷2] = 20%

- b) Big Rock's performance in asset management is better when measured by either of the two ratios. This suggests that Big Rock is more effective in using its assets to generate revenue and profit even though it is a smaller company.

Bloomcode: Application

Difficulty: Medium

Learning Objective: Illustrate the reporting and analysis of long-lived assets.

Section Reference: Statement Presentation and Analysis

CPA: Financial Reporting

**Exercise 41**

Presented below is information related to long-lived assets at year end on December 31, 2017 for Jankowski Company:

Buildings .....	\$1,080,000
Goodwill .....	420,000
Patents.....	600,000
Coal Mine.....	390,000
Accumulated depreciation—buildings.....	670,000
Accumulated depreciation—coal mine .....	275,000
Accumulated amortization—patents.....	120,000

**Instructions**

Prepare a partial balance sheet for Jankowski Company that shows how the above listed items would be presented.

**Solution 41** (10 min.)

**JANKOWSKI COMPANY  
Balance Sheet (Partial)  
December 31, 2017**

Property, Plant, and Equipment		
Buildings .....	\$1,080,000	
Less: Accumulated depreciation.....	<u>670,000</u>	\$410,000

Coal mine.....	\$390,000	
Less: Accumulated depreciation.....	<u>275,000</u>	<u>115,000</u>
Total property, plant, and equipment .....		525,000
Intangible Assets		
Patents.....	\$ 600,000	
Less: Accumulated amortization.....	<u>120,000</u>	
Total Intangible Assets .....		480,000
Goodwill .....		420,000
Total long-lived assets .....		<u>\$1,425,000</u>

Bloomcode: Analysis

Difficulty: Easy

Learning Objective: Illustrate the reporting and analysis of long-lived assets.

Section Reference: Statement Presentation and Analysis

CPA: Financial Reporting

**Exercise 42**

Indicate in the blank spaces below, the appropriate group heading for financial reporting purposes. Use the following code to identify your answer:

- PPE Property, Plant, and Equipment
- NR Natural Resources
- I Intangible Assets
- O Other
- N/A Not on the balance sheet

- |                                                 |                              |
|-------------------------------------------------|------------------------------|
| ___ 1. Goodwill                                 | ___ 7. Timberlands           |
| ___ 2. Land improvements                        | ___ 8. Franchises            |
| ___ 3. Development costs for a patented product | ___ 9. Licences              |
| ___ 4. Accumulated depreciation—buildings       | ___ 10. Equipment            |
| ___ 5. Trademarks                               | ___ 11. Depreciation expense |
| ___ 6. Research costs                           | ___ 12. Land                 |

**Solution 42** (5 min.)

1. I Goodwill
2. PPE Land improvements
3. I Patent
4. PPE Accumulated depreciation—buildings

5. I Trademarks
6. N/A Research costs
7. NR Timberlands
8. I Franchises
9. I Licences
10. PPE Equipment
11. N/A Depreciation expense
12. PPE or NR Land

Bloomcode: Analysis

Difficulty: Medium

Learning Objective: Illustrate the reporting and analysis of long-lived assets.

Section Reference: Statement Presentation and Analysis

CPA: Financial Reporting

### Exercise 43

Net sales were \$1,500,000 and profit was \$250,000 in the second year of operation for Tirekicker's Used Car Company. Total assets in the first year were \$800,000 and in the second year \$1,200,000.

### Instructions

- a) Determine the asset turnover and the return on assets for Tirekicker's Used Car Company.
- b) What do these ratios show?

### Solution 43 (5 min.)

$$\begin{aligned} \text{a) Asset Turnover} &= \text{Net Sales} \div \text{Average Assets} \\ &= \$1,500,000 \div [(\$800,000 + \$1,200,000) \div 2] = 1.5 \text{ times} \end{aligned}$$

$$\begin{aligned} \text{Return on Assets} &= \text{Profit} \div \text{Average Assets} \\ &= \$250,000 \div [(\$800,000 + \$1,200,000) \div 2] = 25\% \end{aligned}$$

- b) The Asset Turnover ratio shows how efficiently a company uses its assets to generate sales revenue. The Return on Assets ratio shows the profitability of assets used in the earning process.

Bloomcode: Application

Difficulty: Easy

Learning Objective: Illustrate the reporting and analysis of long-lived assets.

Section Reference: Statement Presentation and Analysis

CPA: Financial Reporting

**Exercise 44**

The following information is taken from the records of Wasp Industrial Ltd.

	2018	2017	2016
Total assets reported year end	\$14,110,500	\$12,083,700	\$10,669,900
Sales revenue	2,037,210	2,097,100	2,120,500
Sales discounts	14,521	17,554	16,808
Total expenses	875,770	890,425	925,860

**Instructions**

- Calculate the 2018 and 2017 asset turnover and return on assets.
- Briefly interpret the results of each ratio examined in part a).

**Solution 44** (10 min.)

a) 2018 asset turnover =  

$$(\$2,037,210 - \$14,521) \div [(\$14,110,500 + \$12,083,700) \div 2] = \underline{0.15}$$

2017 asset turnover =  

$$(\$2,097,100 - \$17,554) \div [(\$12,083,700 + \$10,669,900) \div 2] = \underline{0.18}$$

2018 return on assets =  

$$(\$2,037,210 - \$14,521 - \$875,770) / [(\$14,110,500 + \$12,083,700) \div 2] = \underline{0.09}$$

2017 return on assets =  

$$(\$2,097,100 - \$17,554 - \$890,425) / [(\$12,083,700 + \$10,669,900) \div 2] = \underline{0.10}$$

- b) The asset turnover ratio suggests that for each dollar that Wasp has invested in assets, it produced \$0.13 (2018) and \$0.14 (2017) in sales. This demonstrates a declining trend that should be closely compared to the industry average.
- The return on assets ratio suggests that Wasp generated profits of 9% (2018) and 10% (2017) for every dollar invested in assets. This demonstrates a declining trend that should be closely compared to the industry average.

Bloomcode: Application

Difficulty: Medium

Learning Objective: Illustrate the reporting and analysis of long-lived assets.

Section Reference: Statement Presentation and Analysis

CPA: Financial Reporting

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