



Ch11 - Test bank for Intermediate Accounting, IFRS Edition,
3e

Financial Accounting I (香港科技大學)

CHAPTER 11

DEPRECIATION, IMPAIRMENTS, AND DEPLETION

CHAPTER LEARNING OBJECTIVES

1. Describe depreciation concepts and methods of depreciation.
2. Identify other depreciation issues.
3. Explain the accounting issues related to asset impairment.
4. Discuss the accounting procedures for depletion of mineral resources.
5. Apply the accounting for revaluations.
6. Demonstrate how to report and analyze property, plant, equipment, and mineral resources.

TRUE-FALSE—Conceptual

1. Depreciation is a means of cost allocation, not a matter of valuation.
2. Depreciation is based on the decline in the fair value of the asset.
3. Depreciation, depletion, and amortization all involve the allocation of the cost of a long-lived asset to expense.
4. The cost of an asset less its residual value is its depreciation base.
5. The three factors involved in the depreciation process are the depreciation base, the useful life, and the risk of obsolescence.
6. Inadequacy is the replacement of one asset with another more efficient and economical asset.
7. The major objection to the straight-line method is that it assumes the asset's economic usefulness and repair expense are the same each year.
8. The units-of-production approach to depreciation is appropriate when depreciation is a function of time instead of activity.
9. An accelerated depreciation method is appropriate when the asset's economic usefulness is the same each year.
10. The declining-balance method does not deduct the residual value in computing the depreciation base.
11. Changes in estimates are handled prospectively by dividing the asset's book value less any residual value by the remaining estimated life.
12. Under component depreciation, each component of an item of property, plant and equipment whose cost is significant relative to the total cost of the asset must be depreciated separately.
13. Component depreciation must be calculated using the straight-line method.
14. The first step in determining an impairment loss is to identify whether impairment indicators are present.
15. The recoverable amount used to impairment test a long-lived tangible asset is defined as the asset's fair value less costs to sell.
16. An asset's value in use is defined as the present value of the cash flows expected from its future use and eventual sale at the end its useful life.
17. Recoveries of impairment for tangible long-lived assets are reported as components of other comprehensive income.

18. A recovery of impairment for a tangible long-lived asset is limited to the carrying value that would have been reported had the impairment not occurred.
19. After an impairment loss is recorded, the recoverable amount becomes the basis for the impaired asset and is used to calculate depreciation in future periods.
20. An impairment loss is the amount by which the carrying amount of the asset exceeds the sum of the expected future cash flows from the use of that asset.
21. Recoverable amount is defined as the higher of fair value less costs to sell or value-in-use.
22. Assets held for disposal should be reported at the lower of cost or net realizable value.
23. Intangible development costs and restoration costs are part of the depletion base.
24. Although IFRS allows it, most companies do not use revaluation accounting.
25. Unrealized gains from revaluations do not increase net income but are instead reported as components of other comprehensive income.
26. The Accumulated Other Comprehensive Income account related to revaluations cannot have a negative balance.
27. Revaluation surplus is a temporary account which is closed to Retained Earnings at the end of an accounting period.
28. The recoverability test is the first step in impairment testing under both IFRS and U.S. GAAP.
29. The asset turnover is computed by dividing net sales by ending total assets.
30. The profit margin on sales is a measure for analyzing the use of property, plant, and equipment.

True False Answers—Conceptual

Item	Ans.	Item	Ans.	Item	Ans.	Item	Ans.	Item	Ans.	Item	Ans.
1.	T	6.	F	11.	T	16.	T	21.	T	26.	T
2.	F	7.	T	12.	T	17.	F	22.	T	27.	F
3.	T	8.	F	13.	F	18.	T	23.	T	28.	F
4.	T	9.	F	14.	T	19.	T	24.	T	29.	F
5.	F	10.	T	15.	F	20.	F	25.	T	30.	T

MULTIPLE CHOICE—Conceptual

31. Which of the following is true of depreciation accounting?
- It is not a matter of valuation.
 - It is part of the matching of revenues and expenses.
 - It retains funds by reducing income taxes and dividends.
 - All of these answer choices are correct.
32. Which of the following principles best describes the conceptual rationale for the methods of matching depreciation expense with revenues?
- Associating cause and effect
 - Systematic and rational allocation
 - Immediate recognition
 - Partial recognition
- ^S33. Which of the following most accurately reflects the concept of depreciation as used in accounting?
- The process of charging the decline in value of an economic resource to income in the period in which the benefit occurred.
 - The process of allocating the cost of tangible assets to expense in a systematic and rational manner to those periods expected to benefit from the use of the asset.
 - A method of allocating asset cost to an expense account in a manner which closely matches the physical deterioration of the tangible asset involved.
 - An accounting concept that allocates the portion of an asset used up during the year to the contra asset account for the purpose of properly recording the fair market value of tangible assets.
- ^S34. The major difference between the service life of an asset and its physical life is that
- service life refers to the time an asset will be used by a company and physical life refers to how long the asset will last.
 - physical life is the life of an asset without consideration of residual value and service life requires the use of residual value.
 - physical life is always longer than service life.
 - service life refers to the length of time an asset is of use to its original owner, while physical life refers to how long the asset will be used by all owners.
- ^P35. The term "depreciable base," or "depreciation base," as it is used in accounting, refers to
- the total amount to be charged (debited) to expense over an asset's useful life.
 - the cost of the asset less the related depreciation recorded to date.
 - the estimated fair value of the asset at the end of its useful life.
 - the acquisition cost of the asset.
36. Economic factors that shorten the service life of an asset include
- obsolescence.
 - supersession.
 - inadequacy.
 - All of these answer choices are correct.

37. Which of the following is **not** one of the basic questions that must be answered before the amount of depreciation charge can be computed?
- What depreciable base is to be used for the asset?
 - What is the asset's useful life?
 - What method of cost apportionment is best for this asset?
 - What product or service is the asset related to?
- ^s38. Which of the following is a realistic assumption of the straight-line method of depreciation?
- The asset's economic usefulness is the same each year.
 - The repair and maintenance expense is essentially the same each period.
 - The rate of return analysis is enhanced using the straight-line method.
 - Depreciation is a function of time rather than a function of usage.
39. The activity method of depreciation
- is a variable charge approach.
 - assumes that depreciation is a function of the passage of time.
 - conceptually associates cost in terms of input measures.
 - All of these answer choices are correct.
40. For income statement purposes, depreciation is a variable expense if the depreciation method used is
- units-of-production.
 - straight-line.
 - sum-of-the-years'-digits.
 - declining-balance.
41. If an industrial firm uses the units-of-production method for computing depreciation on its only plant asset, factory machinery, the credit to accumulated depreciation from period to period during the life of the firm will
- be constant.
 - vary with unit sales.
 - vary with sales revenue.
 - vary with production.
42. Use of the double-declining balance method
- results in a decreasing charge to depreciation expense.
 - means residual value is not deducted in computing the depreciation base.
 - means the book value should not be reduced below residual value.
 - All of these answer choices are correct.
43. Use of the sum-of-the-years'-digits method
- results in residual value being ignored.
 - means the denominator is the years remaining at the beginning of the year.
 - means the book value should not be reduced below residual value.
 - All of these answer choices are correct.
44. A graph is set up with "yearly depreciation expense" on the vertical axis and "time" on the horizontal axis. Assuming linear relationships, how would the graphs for straight-line and sum-of-the-years'-digits depreciation, respectively, be drawn?
- Vertically and sloping down to the right
 - Vertically and sloping up to the right
 - Horizontally and sloping down to the right
 - Horizontally and sloping up to the right

45. A principal objection to the straight-line method of depreciation is that it
- provides for the declining productivity of an aging asset.
 - ignores variations in the rate of asset use.
 - tends to result in a constant rate of return on a diminishing investment base.
 - gives smaller periodic write-offs than decreasing charge methods.
- ^s46. When depreciation is computed for partial periods under a diminishing-charge depreciation method, it is necessary to
- charge a full year's depreciation to the year of acquisition.
 - determine depreciation expense for the full year and then prorate the expense between the two periods involved.
 - use the straight-line method for the year in which the asset is sold or otherwise disposed of.
 - use a residual value equal to the first year's partial depreciation charge.
47. Depreciation is normally computed on the basis of the nearest
- full month and to the nearest cent.
 - full month and to the nearest dollar.
 - day and to the nearest cent.
 - day and to the nearest dollar.
48. Myers Company acquired machinery on January 1, 2014 which it depreciated under the straight-line method with an estimated life of fifteen years and no residual value. On January 1, 2019, Myers estimated that the remaining life of this machinery was six years with no residual value. How should this change be accounted for by Myers?
- As a prior period adjustment
 - As the cumulative effect of a change in accounting principle in 2019
 - By setting future annual depreciation equal to one-sixth of the book value on January 1, 2019
 - By continuing to depreciate the machinery over the original fifteen year life
49. A change in estimate should
- result in restatement of prior period statements.
 - be handled in current and future periods.
 - be handled in future periods only.
 - be handled retroactively.
50. Lynch Printing Company determines that a printing press used in its operations has suffered an impairment in value because of technological changes. An entry to record the impairment should
- recognize extra depreciation expense for the period.
 - include a credit to the equipment accumulated depreciation account.
 - include a credit to the equipment account.
 - not be made if the equipment is still being used.
51. All of the following are true with regard to impairment testing of long-lived assets except:
- If impairment indicators are present, the company must conduct an impairment test.
 - The impairment test compares the asset's carrying value with the lower of its fair value less cost to sell and its value-in-use.
 - If the recoverable amount is lower than the carrying value, an impairment loss will be reported on the period's income statement.
 - If either the fair value less cost to sell or the value-in-use is higher than the carrying amount, no impairment loss will be recorded.

52. All of the following are true of the recoverable amount used in the impairment test of a long-lived asset **except**:
- An asset's recoverable amount is the lower of its value-in-use and its fair value less cost to sell.
 - An asset's recoverable amount is the higher of its fair value less cost to sell and its value-in-use.
 - The recoverable amount is calculated as the asset's value in use less costs to sell.
 - If an asset's recoverable amount is higher than the carrying amount, no impairment loss will be reported on the period's income statement.
53. Which of following is **not** a similarity in the accounting treatment for depreciation and cost depletion?
- The estimated life is based on economic or productive life.
 - Assets subject to either are reported in the same classification on the statement of financial position.
 - The rates may be changed upon revision of the estimated productive life used in the original rate computations.
 - Both depreciation and depletion are based on time.
54. Which of the following is **not** a difference between the accounting treatment for depreciation and cost depletion?
- Depletion applies to natural resources while depreciation applies to plant and equipment.
 - Depletion refers to the physical exhaustion or consumption of the asset while depreciation refers to the wear, tear, and obsolescence of the asset.
 - Many formulas are used in computing depreciation but only one is used to any extent in computing depletion.
 - The cost of the asset is the starting point from which computation of the amount of the periodic charge is made to operations for depreciation, but the fair value reassessed each year as the starting point for the periodic charge for depletion.
55. Dividends representing a return of capital to shareholders are **not** uncommon among companies which
- use accelerated depreciation methods.
 - use straight-line depreciation methods.
 - recognize both functional and physical factors in depreciation.
 - None of these answer choices are correct.
56. Depletion expense
- is usually part of cost of goods sold.
 - includes tangible equipment costs in the depletion base.
 - excludes intangible development costs from the depletion base.
 - excludes restoration costs from the depletion base.
57. The most common method of recording depletion for accounting purposes is the
- percentage depletion method.
 - diminishing-charge method.
 - straight-line method.
 - units-of-production method.

11 - 8 Test Bank for Intermediate Accounting, IFRS Edition, 3e

58. Of the following costs related to the development of mineral resources, which one is **not** a part of depletion cost?
- Acquisition cost of the mineral resource deposit
 - Exploration costs
 - Tangible equipment costs associated with machinery used to extract the mineral resource
 - Intangible development costs such as drilling costs, tunnels, and shafts
59. Under IFRS, how is the account revaluation surplus reported?
- As “other revenues and expenses” on the income statement.
 - As part of other comprehensive income which can be reported presented in separate statement, combined with income statement, or in changes in stockholders’ equity statement.
 - It is included with Reserves in the stockholders’ equity section of the Statement of Financial Position.
 - The account is not reported in the financial statements.
60. IFRS and U.S. GAAP differ with regard to accounting for impairment on property, plant and equipment in all of the following ways **except**
- U.S. GAAP requires the recoverability test to determine whether impairment has occurred but IFRS does not.
 - Under IFRS, impairment testing is performed at each reporting date. Under U.S. GAAP impairment testing is done only when management has reason to believe that the asset may be impaired.
 - IFRS but not U.S. GAAP, allows for recovery of impairment in assets held for use.
 - U.S. GAAP requires assets held for sale or disposal to be reported at the lower-of-cost or net realizable value. IFRS requires that these assets be reported at the higher of fair value less cost to sell and value-in-use.
61. The asset turnover is computed by dividing
- net income by ending total assets.
 - net income by average total assets.
 - net sales by ending total assets.
 - net sales by average total assets.
62. The return on total assets is computed by dividing
- Net income by ending total assets.
 - Net sales by average total assets.
 - Net sales by ending total assets.
 - Net income by average total assets.

Multiple Choice Answers—Conceptual

Item	Ans.	Item	Ans.	Item	Ans.	Item	Ans.	Item	Ans.	Item	Ans.	Item	Ans.
31.	d	36.	d	41.	d	46.	b	51.	b	56.	a	61.	d
32.	b	37.	d	42.	d	47.	b	52.	a	57.	d	62.	d
33.	b	38.	d	43.	c	48.	c	53.	d	58.	c		
34.	a	39.	a	44.	c	49.	b	54.	d	59.	b		
35.	a	40.	a	45.	b	50.	b	55.	d	60.	d		

Solutions to those Multiple Choice questions for which the answer is “none of these.”

MULTIPLE CHOICE—Computational

63. Ferguson Company purchased a depreciable asset for €100,000. The estimated residual value is €10,000, and the estimated useful life is 10 years. The straight-line method will be used for depreciation. What is the depreciation base of this asset?
- €9,000
 - €10,000
 - €90,000
 - €100,000
64. Hamilton Company purchased a depreciable asset for £200,000. The estimated residual value is £20,000, and the estimated useful life is 10 years. The straight-line method will be used for depreciation. What is the depreciation base of this asset?
- £18,000
 - £20,000
 - £180,000
 - £200,000
65. Solar Products purchased a computer for €13,000 on July 1, 2018. The company intends to depreciate it over 4 years using the double-declining balance method. Residual value is €1,000. Depreciation for 2018 is
- €6,500
 - €3,250
 - €4,875
 - €3,000
66. Solar Products purchased a computer for €13,000 on July 1, 2018. The company intends to depreciate it over 4 years using the double-declining balance method. Residual value is €1,000. Depreciation for 2019 is
- €6,500
 - €3,250
 - €4,875
 - €3,000
67. Gardner Corporation purchased a truck at the beginning of 2018 for £75,000. The truck is estimated to have a residual value of £3,000 and a useful life of 120,000 miles. It was driven 18,000 miles in 2018 and 32,000 miles in 2019. What is the depreciation expense for 2019?
- £11,250
 - £10,800
 - £18,000
 - £30,000
68. Gardner Corporation purchased a truck at the beginning of 2015 for £75,000. The truck is estimated to have a residual value of £3,000 and a useful life of 120,000 miles. It was driven 18,000 miles in 2015 and 32,000 miles in 2016. What is the depreciation expense for 2016?
- £20,000
 - £53,333
 - £19,200

- d. £32,000
69. Kinder Company purchased a depreciable asset for €200,000. The estimated residual value is €10,000, and the estimated useful life is 10,000 hours. Kinder used the asset for 1,100 hours in the current year. The activity method will be used for depreciation. What is the depreciation expense on this asset?
- €19,000
 - €20,900
 - €22,000
 - €190,000
70. Jamar Company purchased a depreciable asset for €150,000. The estimated residual value is €10,000, and the estimated useful life is 8 years. The double-declining balance method will be used for depreciation. What is the depreciation expense for the second year on this asset?
- €17,500
 - €26,250
 - €28,125
 - €37,500
71. Engels Company purchased a depreciable asset for €600,000. The estimated residual value is €30,000, and the estimated useful life is 10,000 hours. Engels used the asset for 1,100 hours in the current year. The activity method will be used for depreciation. What is the depreciation expense on this asset?
- €57,000
 - €62,700
 - €66,000
 - €570,000
72. Hart Company purchased a depreciable asset for £360,000. The estimated residual value is £24,000, and the estimated useful life is 8 years. The double-declining balance method will be used for depreciation. What is the depreciation expense for the second year on this asset?
- £42,000
 - £63,000
 - £67,500
 - £90,000
73. On July 1, 2018, Gonzalez Corporation purchased factory equipment for €150,000. Residual value was estimated to be €4,000. The equipment will be depreciated over ten years using the double-declining balance method. Counting the year of acquisition as one-half year, Gonzalez should record depreciation expense for 2019 on this equipment of
- €30,000.
 - €27,000.
 - €26,280.
 - €24,000.
74. Krause Corporation purchased factory equipment that was installed and put into service January 2, 2018, at a total cost of €60,000. Residual value was estimated at €4,000. The equipment is being depreciated over four years using the double-declining balance method. For the year 2019, Krause should record depreciation expense on this equipment of
- €14,000.

- b. €15,000.
c. €28,000.
d. €30,000.
75. On April 13, 2018, Neill Co. purchased machinery for €120,000. Residual value was estimated to be €5,000. The machinery will be depreciated over ten years using the double-declining balance method. If depreciation is computed on the basis of the nearest full month, Neill should record depreciation expense for 2019 on this machinery of
- a. €20,800.
b. €20,400.
c. €20,550.
d. €20,933.
76. Matile Co. purchased machinery that was installed and ready for use on January 3, 2018, at a total cost of €69,000. Residual value was estimated at €9,000. The machinery will be depreciated over five years using the double-declining balance method. For the year 2019, Matile should record depreciation expense on this machinery of
- a. €14,400.
b. €16,560.
c. €18,000.
d. €27,600.
77. A plant asset has a cost of £24,000 and a residual value of £6,000. The asset has a three-year life. If depreciation in the third year amounted to £3,000, which depreciation method was used?
- a. Straight-line
b. Declining-balance
c. Sum-of-the-years'-digits
d. Cannot tell from information given
78. On January 1, 2018, Graham Company purchased a new machine for €2,100,000. The new machine has an estimated useful life of nine years and the residual value was estimated to be €75,000. Depreciation was computed on the sum-of-the-years'-digits method. What amount should be shown in Graham's balance sheet at December 31, 2019, net of accumulated depreciation, for this machine?
- a. €1,695,000
b. €1,335,000
c. €1,306,666
d. €1,244,250
79. On January 1, 2012, Forbes Company purchased equipment at a cost of €50,000. The equipment was estimated to have a residual value of €5,000 and it is being depreciated over eight years under the sum-of-the-years'-digits method. What should be the charge for depreciation of this equipment for the year ended December 31, 2019?
- a. €1,250
b. €1,389
c. €2,500
d. €5,625
80. On September 19, 2018, McCoy Co. purchased machinery for £190,000. Residual value was estimated to be £10,000. The machinery will be depreciated over eight years using the sum-of-the-years'-digits method. If depreciation is computed on the basis of the nearest full month, McCoy should record depreciation expense for 2019 on this machinery of

11 - 12 Test Bank for Intermediate Accounting, IFRS Edition, 3e

- a. £40,903.
b. £38,845.
c. £38,750.
d. £35,000.
81. On January 3, 2017, Munoz Co. purchased machinery. The machinery has an estimated useful life of eight years and an estimated residual value of €30,000. The depreciation applicable to this machinery was €65,000 for 2019, computed by the sum-of-the-years'-digits method. The acquisition cost of the machinery was
- a. €360,000.
b. €390,000.
c. €420,000.
d. €468,000.
82. On January 2, 2016, Stacy Company acquired equipment to be used in its manufacturing operations. The equipment has an estimated useful life of 10 years and an estimated residual value of €15,000. The depreciation applicable to this equipment was €70,000 for 2019, computed under the sum-of-the-years'-digits method. What was the acquisition cost of the equipment?
- a. €535,000
b. €565,000
c. €550,000
d. €541,667
83. Orton Corporation, which has a calendar year accounting period, purchased a new machine for €40,000 on April 1, 2014. At that time Orton expected to use the machine for nine years and then sell it for €4,000. The machine was sold for €22,000 on Sept. 30, 2019. Assuming straight-line depreciation, no depreciation in the year of acquisition, and a full year of depreciation in the year of retirement, the gain to be recognized at the time of sale would be
- a. €4,000.
b. €3,000.
c. €2,000.
d. €0.
84. On January 1, 2019, the Accumulated Depreciation—Machinery account of a particular company showed a balance of £370,000. At the end of 2019, after the adjusting entries were posted, it showed a balance of £395,000. During 2019, one of the machines which cost £125,000 was sold for £60,500 cash. This resulted in a loss of £4,000. Assuming that no other assets were disposed of during the year, how much was depreciation expense for 2019?
- a. £85,500
b. £93,500
c. £25,000
d. £60,500
85. During 2019, Noller Co. sold equipment that had cost €98,000 for €58,800. This resulted in a gain of €4,300. The balance in Accumulated Depreciation—Equipment was €325,000 on January 1, 2019, and €310,000 on December 31. No other equipment was disposed of during 2015. Depreciation expense for 2019 was
- a. €15,000.
b. €19,300.
c. €28,500.

d. €58,500.

11 - 14 Test Bank for Intermediate Accounting, IFRS Edition, 3e

86. Lloyd Company purchased a depreciable asset for £1,360,000. The estimated salvage value is £360,000, and the estimated useful life is 8 years. The double-declining balance method will be used for depreciation. What is the depreciation expense for the second year on this asset?
- £125,000
 - £170,000
 - £187,000
 - £255,000
87. Kleinschmidt Company purchased a depreciable asset for €2,000,000. The estimated salvage value is €150,000, and the estimated useful life is 400,000 hours. Kleinschmidt used the asset for 35,000 hours in the current year. The activity method will be used for depreciation. What is the depreciation expense on this asset?
- €160,870
 - €161,875
 - €175,000
 - €350,000
88. On January 1, 2013, Fleming Company purchased equipment at a cost of CHF650,000. The equipment was estimated to have a salvage value of CHF55,000 and it is being depreciated over seven years under the sum-of-the-year's-digits method. What should be the charge for the depreciation of this equipment for the year ended December 31, 2019?
- CHF21,250
 - CHF23,214.
 - CHF85,000
 - CHF148,750
89. Stevenson Company purchased a depreciable asset for €250,000 on April 1, 2016. The estimated residual value is €25,000, and the estimated useful life is 5 years. The straight-line method is used for depreciation. What is the balance in accumulated depreciation on May 1, 2019 when the asset is sold?
- €90,000
 - €105,000
 - €123,750
 - €138,750
90. Williamson Corporation purchased a depreciable asset for €300,000 on January 1, 2016. The estimated residual value is €30,000, and the estimated useful life is 9 years. The straight-line method is used for depreciation. In 2019, Williamson changed its estimates to a total useful life of 5 years with a salvage value of €50,000. What is 2019 depreciation expense?
- €30,000
 - €50,000
 - €80,000
 - €90,000

91. Rollins Company purchased a depreciable asset for £300,000 on April 1, 2016. The estimated residual value is £30,000, and the estimated total useful life is 5 years. The straight-line method is used for depreciation. What is the balance in accumulated depreciation on May 1, 2019 when the asset is sold?
- £118,000
 - £126,000
 - £148,500
 - £166,500
92. Fanestil Corporation purchased a depreciable asset for €420,000 on January 1, 2016. The estimated residual value is €42,000, and the estimated total useful life is 9 years. The straight-line method is used for depreciation. In 2019, Fanestill changed its estimates to a total useful life of 5 years with a residual value of €70,000. What is 2019 depreciation expense?
- €42,000
 - €70,000
 - €112,000
 - €126,000
93. Archer Company purchased equipment in January of 2009 for €90,000. The equipment was being depreciated on the straight-line method over an estimated useful life of 20 years, with no residual value. At the beginning of 2019, when the equipment had been in use for 10 years, the company paid €15,000 to overhaul the equipment. As a result of this improvement, the company estimated that the useful life of the equipment would be extended an additional 5 years. What should be the depreciation expense recorded for this equipment in 2019?
- €3,000
 - €4,000
 - €4,500
 - €5,500
94. Marsh Corporation purchased a machine on July 1, 2016, for £750,000. The machine was estimated to have a useful life of 10 years with an estimated residual value of £42,000. During 2019, it became apparent that the machine would become uneconomical after December 31, 2023, and that the machine would have no scrap value. Accumulated depreciation on this machine as of December 31, 2018, was £177,000. What should be the charge for depreciation in 2019?
- £106,200
 - £114,600
 - £123,000
 - £143,250
95. Rivera Company purchased a tooling machine on January 3, 2012 for €500,000. The machine was being depreciated on the straight-line method over an estimated useful life of 10 years, with no residual value. At the beginning of 2019, the company paid €125,000 to overhaul the machine. As a result of this improvement, the company estimated that the useful life of the machine would be extended an additional 5 years (15 years total). What should be the depreciation expense recorded for the machine in 2019?
- €34,375
 - €41,667
 - €50,000
 - €55,000

11 - 16 Test Bank for Intermediate Accounting, IFRS Edition, 3e

96. Gates Co. purchased machinery on January 2, 2013, for €440,000. The straight-line method is used and useful life is estimated to be 10 years, with a €40,000 residual value. At the beginning of 2019 Gates spent €96,000 to overhaul the machinery. After the overhaul, Gates estimated that the useful life would be extended 4 years (14 years total), and the residual value would be €20,000. The depreciation expense for 2019 should be
- €28,250.
 - €34,500.
 - €40,000.
 - €37,000.
97. Holcomb Corporation owns machinery with a book value of £190,000. The machinery's fair value less costs to sell is £175,000, and its value-in-use is £200,000. Holcomb should recognize a loss on impairment of
- £ -0-.
 - £10,000.
 - £15,000.
 - £25,000.
98. Kohlman Corporation owns machinery with a book value of €190,000. The machinery has a fair value less costs to sell of €175,000, and its value-in-use is €170,000. Kohlman should recognize a loss on impairment of
- € -0-.
 - €5,000.
 - €15,000.
 - €20,000.
99. Technique Co. has equipment with a carrying amount of €800,000. The equipment's fair value less costs to sell is €780,000, and its value-in-use is €815,000. The equipment is expected to be used in operations in the future. What amount (if any) should Technique report as an impairment to its equipment?
- No impairment should be reported.
 - €20,000
 - €15,000
 - €35,000

Use the following information for questions 100 and 101.

On January 1, 2018, Fredrichs Inc. purchased equipment with a cost of €3,060,000, a useful life of 12 years and no salvage value. The company uses straight-line depreciation. At December 31, 2018, the company determines that impairment indicators are present. The fair value less cost to sell the asset is estimated to be €2,600,000. The asset's value-in-use is estimated to be €2,365,000. There is no change in the asset's useful life or salvage value

100. The 2018 income statement will report Loss on Impairment of
- €0.
 - €205,000.
 - €440,000.
 - €460,000.

101. The 2019 (second year) income statement will report depreciation expense for the equipment of
- €216,667.
 - €236,364.
 - €255,000.
 - €260,000.
102. On January 1, 2019, W. Poon Inc. purchased equipment with a cost of HK\$4,668,000 a useful life of 12 years and no salvage value. The company uses straight-line depreciation. At December 31, 2019, the company determines that impairment indicators are present. The fair value less cost to sell the asset is estimated to be Hk\$4,620,000. The asset's value-in-use is estimated to be HK\$4,305,000. There is no change in the asset's useful life or salvage value. The 2019 income statement will report Loss on Impairment of
- HK\$0.
 - HK\$26,000.
 - HK\$48,000.
 - HK\$341,000.

103. On January 2, 2018, Q. Tong Inc. purchased equipment with a cost of HK\$10,440,000, a useful life of 10 years and no salvage value. The Company uses straight-line depreciation. At December 31, 2018 and December 31, 2019, the company determines that impairment indicators are present. The following information is available for impairment testing at each year end:

	<u>12/31/2018</u>	<u>12/31/2019</u>
Fair value less cost to sell	HK\$9,315,000	Hk\$8,350,000
Value-in-use	HK\$9,350,000	HK\$8,315,000

There is no change in the asset's useful life or salvage value. The 2019 income statement will report

- Recovery of Impairment Loss of HK\$3,889.
 - Impairment Loss of HK\$10,000.
 - Recovery of Impairment Loss of HK\$38,889.
 - Impairment Loss of HK\$1,000,000.
104. On January 2, 2018, Q. Tong Inc. purchased equipment with a cost of HK\$10,440,000, a useful life of 10 years and no salvage value. The company uses straight-line depreciation. At December 31, 2018 and December 31, 2019, the company determines that impairment indicators are present. The following information is available for impairment testing at each year end:

	<u>12/31/2018</u>	<u>12/31/2019</u>
Fair value less costs to sell	HK\$9,315,000	Hk\$8,850,000
Value-in-use	HK\$9,350,000	HK\$8,915,000

There is no change in the asset's useful life or salvage value. The 2016 income statement will report

- no Impairment Loss or Recovery of Impairment Loss.
- Impairment Loss of HK\$435,000.
- Recovery of Impairment Loss of HK\$40,889.
- Recovery of Impairment Loss of HK\$603,889.

Use the following information for questions 105 and 106.

On January 1, 2018, Edmondton Inc. purchased equipment with a cost of €4,500,000, a useful life of 12 years and no salvage value. The Company uses straight-line depreciation. At December 31, 2018, the company determines that impairment indicators are present. The fair value less cost to sell the asset is estimated to be €3,850,000. The asset's value-in-use is estimated to be €3,500,000. There is no change in the asset's useful life or salvage value.

105. The 2018 income statement will report Loss on Impairment of
- a. €0.
 - b. €275,000.
 - c. €625,000.
 - d. €650,000.
106. The 2019 (second year) income statement will report depreciation expense for the equipment of
- a. €320,833.
 - b. €350,000.
 - c. €375,000.
 - d. €385,000.

107. Percy Resources Company acquired a tract of land containing an extractable mineral resource. Percy is required by its purchase contract to restore the land to a condition suitable for recreational use after it has extracted the mineral resource. Geological surveys estimate that the recoverable reserves will be 2,000,000 tons, and that the land will have a value of \$1,200,000 after restoration. Relevant cost information follows:

Land	€9,000,000
Estimated restoration costs	1,800,000

- If Percy maintains no inventories of extracted material, what should be the charge to depletion expense per ton of extracted material?
- a. €3.90
 - b. €4.50
 - c. €4.80
 - d. €5.40
108. In January, 2019, Yoder Corporation purchased a mineral mine for €3,400,000 with removable ore estimated by geological surveys at 2,000,000 tons. The property has an estimated value of €200,000 after the ore has been extracted. The company incurred €1,000,000 of development costs preparing the mine for production. During 2019, 500,000 tons were removed and 400,000 tons were sold. What is the amount of depletion that Yoder should **expense** for 2019?
- a. €640,000
 - b. €800,000
 - c. €840,000
 - d. €1,120,000

109. During 2019, Eldred Corporation acquired a mineral mine for £1,500,000 of which £200,000 was ascribed to land value after the mineral has been removed. Geological surveys have indicated that 10 million units of the mineral could be extracted. During 2019, 1,500,000 units were extracted and 1,200,000 units were sold. What is the amount of depletion **expensed** for 2019?
- £130,000.
 - £156,000.
 - £180,000.
 - £195,000.
110. In March, 2019, Maley Mines Co. purchased a coal mine for €6,000,000. Removable coal is estimated at 1,500,000 tons. Maley is required to restore the land at an estimated cost of €720,000, and the land should have a value of €630,000. The company incurred €1,500,000 of development costs preparing the mine for production. During 2019, 450,000 tons were removed and 300,000 tons were sold. The total amount of depletion that Maley should record for 2019 is
- €1,374,000.
 - €1,518,000.
 - €2,061,000.
 - €2,277,000.
111. In 2011, Horton Company purchased a tract of land as a possible future plant site. In January, 2019, valuable sulphur deposits were discovered on adjoining property and Horton Company immediately began explorations on its property. In December, 2019, after incurring €400,000 in exploration costs, which were accumulated in an expense account, Horton discovered sulphur deposits appraised at €2,250,000 more than the value of the land. To record the discovery of the deposits, Horton should
- make no entry.
 - debit €400,000 to an asset account.
 - debit €2,250,000 to an asset account.
 - debit €2,650,000 to an asset account.
112. Balcom Corporation acquires a coal mine at a cost of £500,000. Intangible development costs total £120,000. After extraction has occurred, Balcom must restore the property (estimated fair value of the obligation is £60,000), after which it can be sold for £170,000. Balcom estimates that 5,000 tons of coal can be extracted. What is the amount of depletion per ton?
- £102
 - £170
 - £100
 - £124
113. Balcom Corporation acquires a coal mine at a cost of £500,000. Intangible development costs total £120,000. After extraction has occurred, Balcom must restore the property (estimated fair value of the obligation is £60,000), after which it can be sold for £170,000. Balcom estimates that 5,000 tons of coal can be extracted. If 900 tons are extracted the first year, which of the following would be included in the journal entry to record depletion?
- Debit to Accumulated Depletion for £91,800
 - Debit to Inventory for £91,800
 - Credit to Inventory for £90,000
 - Credit to Accumulated Depletion for £153,000

11 - 20 Test Bank for Intermediate Accounting, IFRS Edition, 3e

Use the following information for questions 114 and 115.

On January 1, 2018, Miles Inc. purchased equipment with a cost of €3,570,000, a useful life of 15 years and no salvage value. The company uses straight-line depreciation. At December 31, 2018, an independent appraiser determines that the fair value of the equipment is €3,500,000. Miles prepares financial statements using IFRS and elects to revalue the asset.

114. In the second step of the 2-step revaluation process at the December 31, 2018, the journal entry to revalue the equipment will include a
- debit to Depreciation Expense for €357,000.
 - credit to Equipment for €70,000.
 - credit to Accumulated Depreciation for €238,000.
 - credit to Revaluation Surplus for €70,000.
115. The 2019 (second year) income statement will report depreciation expense for the equipment of
- €250,000.
 - €238,000.
 - €233,333.
 - cannot be determined from the information given.

Use the following information for questions 116 and 117.

On January 1, 2018, Fredo Inc. purchased equipment with a cost of €2,550,000, a useful life of 15 years and no salvage value. The company uses straight-line depreciation. At December 31, 2018, an independent appraiser determines that the fair value of the equipment is €2,500,000. Fredo prepares financial statements using IFRS and elects to revalue the asset.

116. In the second step of the 2-step revaluation process at December 31, 2018, the journal entry to revalue the equipment will include a
- debit to Depreciation Expense for €255,000.
 - credit to Equipment for €50,000.
 - credit to Accumulated Depreciation for €170,000.
 - credit to Revaluation Surplus for €150,000.
117. The 2019 (second year) income statement will report depreciation expense for the equipment of
- €178,571.
 - €170,000.
 - €166,667.
 - cannot be determined from the information given.

Use the following information for questions 118-121.

Simpson Company applies revaluation accounting to plant assets with a carrying value of €800,000, a useful life of 4 years, and no salvage value. Depreciation is calculated on the straight-line basis. At the end of year 1, independent appraisers determine that the asset has a fair value of €750,000.

118. The journal entry to record depreciation for year one will include a
- debit to Accumulated Depreciation for €200,000.
 - debit to Depreciation Expense for €50,000.
 - credit to Accumulated Depreciation for €50,000.
 - debit to Depreciation Expense for €200,000.

119. The journal entry to adjust the plant assets to fair value and record revaluation surplus in year one will include a
- debit to Accumulated Depreciation for €50,000.
 - credit to Depreciation Expense for €150,000.
 - credit to Plant Assets for €150,000.
 - credit to Revaluation Surplus for €150,000.
120. The financial statements for year one will include the following information
- Accumulated depreciation €200,000.
 - Depreciation expense €50,000.
 - Plant assets €750,000.
 - Revaluation surplus €50,000.
121. The entry to record depreciation for this same asset in year two will include a
- debit to Accumulated Depreciation for €200,000.
 - debit to Depreciation Expense for €250,000.
 - credit to Accumulated Depreciation for €150,000.
 - debit to Depreciation Expense for €200,000.
122. In 2019, MegaStores reported net income of £3.8 billion, net sales of £109.8 billion, and average total assets of £61.0 billion. What is MegaStores' asset turnover?
- .056 times
 - .06 times.
 - 1.80 times.
 - 16.05 times.
123. In 2019, MegaStores reported net income of £3.8 billion, net sales of £109.8 billion, and average total assets of £61.0 billion. What is MegaStores' return on total assets?
- 6.2%
 - 16.1%
 - 55.6%
 - 180%

Use the following information for questions 124 and 125:

For 2019, Hoyle Company reports beginning of the year total assets of €900,000, end of the year total assets of €1,100,000, net sales of €1,250,000, and net income of €250,000.

124. Hoyle's 2019 asset turnover is
- .23 times.
 - .25 times.
 - 1.14 times.
 - 1.25 times.
125. The rate of return on assets for Hoyle in 2015 is
- 20.0%.
 - 22.7%.
 - 25.0%.
 - 27.8%.

11 - 22 Test Bank for Intermediate Accounting, IFRS Edition, 3e

126. Markowitz Company reported the following data:

	<u>2018</u>	<u>2019</u>
Sales	£2,000,000	£2,600,000
Net Income	300,000	400,000
Assets at year end	1,800,000	2,500,000
Liabilities at year end	1,100,000	1,500,000

What is Markowitz's asset turnover for 2019?

- a. 1.04
- b. 1.07
- c. 1.21
- d. 1.44

127. Froelich Company reported the following data:

	<u>2018</u>	<u>2019</u>
Sales	€2,000,000	€2,800,000
Net Income	300,000	400,000
Assets at year end	1,800,000	2,500,000
Liabilities at year end	1,100,000	1,500,000

What is Froelich's asset turnover for 2019?

- a. 1.12
- b. 1.15
- c. 1.30
- d. 1.56

Multiple Choice Answers—Computational

Item	Ans.	Item	Ans.	Item	Ans.	Item	Ans.	Item	Ans.	Item	Ans.	Item	Ans.
63.	c	73.	b	83.	c	93.	b	103.	c	113.	b	123.	a
64.	c	74.	b	84.	a	94.	b	104.	c	114.	b	124.	d
65.	b	75.	b	85.	c	95.	a	105.	b	115.	a	125.	c
66.	c	76.	b	86.	d	96.	b	106.	b	116.	b	126.	c
67.	b	77.	c	87.	b	97.	a	107.	c	117.	a	127.	c
68.	c	78.	b	88.	a	98.	c	108.	c	118.	d		
69.	b	79.	a	89.	d	99.	a	109.	b	119.	d		
70.	c	80.	c	90.	c	100.	b	110.	d	120.	c		
71.	b	81.	c	91.	d	101.	b	111.	a	121.	b		
72.	c	82.	b	92.	c	102.	a	112.	a	122.	c		

MULTIPLE CHOICE—CPA Adapted

128. Pike Co. purchased a machine on July 1, 2019, for €400,000. The machine has an estimated useful life of five years and a residual value of €80,000. The machine is being depreciated from the date of acquisition by the 150% declining-balance method. For the year ended December 31, 2019, Pike should record depreciation expense on this machine of
- €120,000.
 - €80,000.
 - €60,000.
 - €48,000.
129. A machine with a five-year estimated useful life and an estimated 10% residual value was acquired on January 1, 2017. The depreciation expense for 2019 using the double-declining balance method would be original cost multiplied by
- $90\% \times 40\% \times 40\%$.
 - $60\% \times 60\% \times 40\%$.
 - $90\% \times 60\% \times 40\%$.
 - $40\% \times 40\%$.
130. On April 1, 2017, Verlin Co. purchased new machinery for €240,000. The machinery has an estimated useful life of five years, and depreciation is computed by the sum-of-the-years'-digits method. The accumulated depreciation on this machinery at March 31, 2019, should be
- €160,000.
 - €144,000.
 - €96,000.
 - €80,000.
131. Hahn Co. takes a full year's depreciation expense in the year of an asset's acquisition and no depreciation expense in the year of disposition. Data relating to one of Hahn's depreciable assets at December 31, 2018 are as follows:

Acquisition year	2016
Cost	£140,000
Residual value	20,000
Accumulated depreciation	96,000
Estimated useful life	5 years

Using the same depreciation method as used in 2016, 2017, and 2018, how much depreciation expense should Hahn record in 2019 for this asset?

- £16,000
- £24,000
- £28,000
- £32,000

11 - 24 Test Bank for Intermediate Accounting, IFRS Edition, 3e

132. A depreciable asset has an estimated 15% residual value. At the end of its estimated useful life, the accumulated depreciation would equal the original cost of the asset under which of the following depreciation methods?

	<u>Straight-line</u>	<u>Productive Output</u>
a.	Yes	No
b.	Yes	Yes
c.	No	Yes
d.	No	No

133. Net income is understated if, in the first year, estimated residual value is excluded from the depreciation computation when using the

	<u>Straight-line Method</u>	<u>Production or Use Method</u>
a.	Yes	No
b.	Yes	Yes
c.	No	No
d.	No	Yes

134. A plant asset with a five-year estimated useful life and no residual value is sold at the end of the second year of its useful life. How would using the sum-of-the-years'-digits method of depreciation instead of the double-declining balance method of depreciation affect a gain or loss on the sale of the plant asset?

	<u>Gain</u>	<u>Loss</u>
a.	Decrease	Decrease
b.	Decrease	Increase
c.	Increase	Decrease
d.	Increase	Increase

135. Giger Company acquired a tract of land containing an extractable mineral resource. Giger is required by the purchase contract to restore the land to a condition suitable for recreational use after it has extracted the mineral resource. Geological surveys estimate that the recoverable reserves will be 5,000,000 tons, and that the land will have a value of €1,000,000 after restoration. Relevant cost information follows:

Land	€7,000,000
Estimated restoration costs	1,500,000

If Giger maintains no inventories of extracted material, what should be the charge to depletion expense per ton of extracted material?

- a. €1.70
- b. €1.50
- c. €1.40
- d. €1.20

136. In January 2019, Fehr Mining Corporation purchased a mineral mine for £4,200,000 with removable ore estimated by geological surveys at 2,500,000 tons. The property has an estimated value of £400,000 after the ore has been extracted. Fehr incurred £1,150,000 of development costs preparing the property for the extraction of ore. During 2019, 340,000 tons were removed and 300,000 tons were sold. For the year ended December 31, 2019, Fehr should include what amount of depletion in its cost of goods sold?
- £516,800
 - £456,000
 - £594,000
 - £673,200

Multiple Choice Answers—CPA Adapted

Item	Ans.	Item	Ans.	Item	Ans.	Item	Ans.	Item	Ans.
128.	c	130.	b	132.	d	134.	b	136.	c
129.	b	131.	a	133.	b	135.	b		

DERIVATIONS — Computational

No.	Answer	Derivation
63.	c	$€100,000 - €10,000 = €90,000.$
64.	c	$£200,000 - £20,000 = £180,000.$
65.	b	$(€13,000 - 0) \times .50 \times 6/12 = €3,250.$
66.	c	$(€13,000 - 0) \times .50 \times 6/12 = €3,250;$ $(€13,000 - €3,250) \times .50 = €4,875.$
67.	b	$(£75,000 - £3,000) \div 120,000 = £.60;$ $£.60 \times 18,000 = £10,800.$
68.	c	$(£75,000 - £3,000) \div 120,000 = £.60;$ $£.60 \times 32,000 = £19,200.$
69.	b	$[€200,000 - €10,000] \div 10,000 \times 1,100 = €20,900.$
70.	c	$€150,000 \times [(1 \div 8) \times 2] = €37,500$ $(€150,000 - €37,500) \times [(1 \div 8) \times 2] = €28,125.$
71.	b	$[(€600,000 - €30,000) \div 10,000] \times 1,100 = €62,700.$
72.	c	$£360,000 \times [(1 \div 8) \times 2] = £90,000$ $(£360,000 - £90,000) \times [(1 \div 8) \times 2] = £67,500.$
73.	b	$[€150,000 - (€150,000 \times 0.1)] \times 0.2 = €27,000.$

DERIVATIONS — Computational (cont.)

No.	Answer	Derivation
74.	b	$[\text{€}60,000 \times (1 - 0.5)] \times 0.5 = \text{€}15,000.$
75.	b	$[\text{€}120,000 - (\text{€}120,000 \times 0.2 \times 0.75)] \times 0.2 = \text{€}20,400.$
76.	b	$[\text{€}69,000 - (\text{€}69,000 \times 0.4)] \times 0.4 = \text{€}16,560.$
77.	c	$(\text{£}24,000 - \text{£}6,000) \times 1/6 = \text{£}3,000.$
78.	b	$\text{€}2,100,000 - [(\text{€}2,100,000 - \text{€}75,000) \times (9/45 + 8/45)] = \text{€}1,335,000.$
79.	a	$(\text{€}50,000 - \text{€}5,000) \times 1/36 = \text{€}1,250.$
80.	c	$(\text{£}180,000 \times 8/36 \times 9/12) + (\text{£}180,000 \times 7/36 \times 3/12) = \text{£}38,750.$
81.	c	$(AC - \text{€}30,000) \times 6/36 = \text{€}65,000$ $AC = \text{€}420,000.$
82.	b	$(AC - \text{€}15,000) \times 7/55 = \text{€}70,000$ $AC = \text{€}565,000.$
83.	c	$\text{€}40,000 - [(\text{€}40,000 - \text{€}4,000) \div 9 \times 5] = \text{€}20,000 \text{ (BV)}$ $\text{€}22,000 - \text{€}20,000 = \text{€}2,000 \text{ (gain).}$
84.	a	$(\text{£}395,000 - \text{£}370,000) + [\text{£}125,000 - (\text{£}60,500 + \text{£}4,000)] = \text{£}85,500.$
85.	c	$\text{€}310,000 - \{\text{€}325,000 - [\text{€}98,000 - (\text{€}58,800 - \text{€}4,300)]\} = \text{€}28,500.$
86.	d	$(1/8 = .125 \times 2 = .25); (.25 \times \text{£}1,360,000 = \text{£}340,000); [.25 \times (\text{£}1,360,000 - \text{£}340,000) = \text{£}255,000].$
87.	b	$(\text{€}2,000,000 - \text{€}150,000) / 400,000 = \text{€}4.625 / \text{hour} \times 35,000 \text{ hours} = \text{€}161,875.$
88.	a	$1/28 \times (\text{CHF}650,000 - \text{CHF}55,000) = \text{CHF}21,250.$
89.	d	$[(\text{€}250,000 - \text{€}25,000) \div 5] \times 3 \frac{1}{12} = \text{€}138,750.$
90.	c	$\text{€}300,000 - [(\text{€}300,000 - \text{€}30,000) \times 3/9] = \text{€}210,000$ $(\text{€}210,000 - \text{€}50,000) \div (5 - 3) = \text{€}80,000.$
91.	d	$[(\text{£}300,000 - \text{£}30,000) \div 5] \times 3 \frac{1}{12} = \text{£}166,500.$
92.	c	$\text{€}420,000 - [(\text{€}420,000 - \text{€}42,000) \times 3/9] = \text{€}294,000$ $(\text{€}294,000 - \text{€}70,000) \div (5 - 3) = \text{€}112,000.$
93.	b	$[(\text{€}90,000 - 0) \div 20] \times 10 = \text{€}45,000$ $[(\text{€}90,000 - \text{€}45,000) + \text{€}15,000] \div [(20 - 10) + 5] = \text{€}4,000.$

DERIVATIONS — Computational (cont.)

No.	Answer	Derivation
94.	b	$(£750,000 - £177,000) \div 5 = £114,600.$
95.	a	$[(€500,000 \div 10) \times 7] - €125,000 = \$225,000$ new (AD) $€500,000 - €225,000 = €275,000; €275,000 \div 8 = €34,375$ per year.
96.	b	$[(€400,000 \div 10) \times 6] - €96,000 = €144,000$ new (AD) $€440,000 - €144,000 = €296,000$ (BV) $(€296,000 - €20,000) \div 8 = €34,500$ per year.
97.	a	$£200,000 > £190,000$; No loss recognized.
98.	c	$€170,000 < €190,000; €175,000 - €190,000 = (€15,000).$
99.	a	$€815,000 > €800,000$; No impairment.
100.	b	$€3,060,000/12 = €255,000; €3,060,000 - €255,000 = €2,805,000; €2,805,000 - €2,600,000 = €205,000.$
101.	b	$€2,600,000/11 = \$236,364.$
102.	a	CV < recoverable amount so no impairment has occurred.
103.	c	2015: $[HK\$10,440,000 - (HK\$10,440,000/10)] = HK\$9,396,000; HK\$9,396,000 - HK\$9,350,000 = HK\$46,000$ (Loss) 2016: $HK\$9,350,000/9 = HK\$1,038,889; HK\$9,350,000 - HK\$1,038,889 = HK\$8,311,111; HK\$8,350,000 - HK\$8,311,111 = HK\$38,889$ (Recovery).
104.	c	2015: $[HK\$10,440,000 - (HK\$10,440,000/10)] = HK\$9,396,000; HK\$9,396,000 - HK\$9,350,000 = HK\$46,000$ (Loss) 2016: $HK\$9,350,000/9 = HK\$1,038,889; HK\$9,350,000 - HK\$1,038,889 = HK\$8,311,111; HK\$8,915,000 - HK\$8,311,111 = HK\$603,889$ but recovery is limited to carrying amount if impairment had never occurred: $HK\$8,352,000 - HK\$8,311,111 = HK\$40,889.$
105.	b	$€4,500,000/12 = €375,000; €4,500,000 - €375,000 = €4,125,000; €4,125,000 - €3,850,000 = €275,000.$
106.	b	$€3,850,000/11 = €350,000.$
107.	c	$(€9,000,000 + €1,800,000 - €1,200,000) \div 2,000,000 = €4.80.$
108.	c	$[(€3,400,000 - €200,000 + €1,000,000) \div 2,000,000] \times 400,000 = €840,000.$
109.	b	$[(£1,500,000 - £200,000) \div 10,000,000] \times 1,200,000 = £156,000.$
110.	d	$[(€6,000,000 + €720,000 - €630,000 + €1,500,000) \div 1,500,000] \times 450,000 = €2,277,000.$

DERIVATIONS — Computational (cont.)

No.	Answer	Derivation
111.	a	Discovery value is generally not recognized.
112.	a	$(£500,000 + £120,000 + £60,000 - £170,000) \div 5,000 = £102.$
113.	b	$£500,000 + £120,000 + £60,000 - £170,000) \div 5,000 = £102;$ $900 \times £102 = £91,800$ dr. to Inventory.
114.	b	$€3,570,000 - €3,500,000 = €70,000.$
115.	a	$€3,500,000 \div 14 = €250,000.$
116.	b	$€2,550,000 - €2,500,000 = €50,000.$
117.	a	$€2,500,000/14 = €178,571.$
118.	d	$(€800,000 - 0) \div 4 = €200,000$ Depr. Exp.
119.	d	$€750,000 - (€800,000 - €200,000) = €150,000$ Reval. Surplus
120.	c	
121.	b	$€750,000 \div 3 = €250,000.$
122.	c	$£109.8 \div £61 = 1.8$ times.
123.	a	$£3.8 \div £61 = 6.2\%$
124.	d	$€1,250,000 \div [(€900,000 + €1,100,000) \div 2] = 1.25$
125.	c	$€250,000 \div [(€900,000 + €1,100,000) \div 2] = 25\%$
126.	c	$£2,600,000 \div [(£1,800,000 + £2,500,000) \div 2] = 1.21$
127.	c	$€2,800,000 \div [(€1,800,000 + €2,500,000) \div 2] = 1.30.$

DERIVATIONS — CPA Adapted

No.	Answer	Derivation
128.	c	$€400,000 \times 0.3 \times 0.5 = €60,000.$
129.	b	Conceptual.
130.	b	$€240,000 \times (5/15 + 4/15) = €144,000.$
131.	a	$2/15 \times (£140,000 - £20,000) = £16,000.$
132.	d	Conceptual.
133.	b	Conceptual.
134.	b	Conceptual.
135.	b	$(€7,000,000 + €1,500,000 - €1,000,000) \div 5,000,000 = €1.50.$
136.	c	$[(£4,200,000 - £400,000 + £1,150,000) \div 2,500,000] \times 300,000 = £594,000.$

EXERCISES

Ex. 11-137—Definitions.

Provide clear, concise answers for the following.

1. Define depreciation.
2. Define depreciation accounting.
3. Does depreciation accounting provide funds? If not, what does provide funds? What does depreciation accounting do related to funds?

Solution 11-137

1. Depreciation is the decline in service potentials or in future benefits of a plant asset due to physical or economic factors.
2. Depreciation accounting is the systematic and rational allocation of the cost of plant assets to the periods benefited from the use of the assets.
3. Depreciation accounting does not provide funds. Revenues provide funds. Depreciation accounting retains funds by reducing income taxes and dividends.

Ex. 11-138—Depreciation methods.

Each of the statements appearing below is descriptive of one or more of the following depreciation methods. In the spaces below, place the letter(s) belonging to the method(s) to which the statement best applies.

- | | |
|----------------------|-----------------------------|
| a. Component | d. Sum-of-the-years'-digits |
| b. Declining-balance | e. Units-of-production |
| c. Straight-line | |

- _____ 1. The depreciation charged by this method decreases by the same amount each year.
- _____ 2. This method is used if each part of a plant asset is significant to the asset's total cost.
- _____ 3. These methods allocate larger shares of the cost of a plant asset to expense during the years in which the greatest use is made of the asset.
- _____ 4. These methods always allocate larger shares of the cost of a plant asset to expense during the earlier years of its life.
- _____ 5. Once the depreciable base, residual value, and life of a plant asset are determined, the annual charges to operations under this method will be the same.

Solution 11-138

- | | |
|------|---------|
| 1. d | 4. b, d |
| 2. a | 5. c |
| 3. e | |

11 - 32 Test Bank for Intermediate Accounting, IFRS Edition, 3e

Ex. 11-139—Calculate depreciation.

A machine which cost \$200,000 is acquired on October 1, 2018. Its estimated residual value is €20,000 and its expected life is eight years.

Instructions

Calculate depreciation expense for 2018 and 2019 by each of the following methods, showing the figures used.

- (a) Double-declining balance
- (b) Sum-of-the-years'-digits

Solution 11-139

(a) 2018:	$25\% \times €200,000 \times \frac{1}{4}$	=	<u>€12,500</u>
2019:	$25\% \times €187,500$	=	<u>€46,875</u>
(b) 2018:	$\frac{8}{36} \times €180,000 \times \frac{1}{4}$	=	<u>€10,000</u>
2019:	$\frac{8}{36} \times €180,000 \times \frac{3}{4}$	=	€30,000
	$\frac{7}{36} \times €180,000 \times \frac{1}{4}$	=	<u>8,750</u>
			<u>€38,750</u>

Ex. 11-140—Calculate depreciation.

A machine cost €500,000 on April 1, 2018. Its estimated residual value is €50,000 and its expected life is eight years.

Instructions

Calculate the depreciation expense (to the nearest dollar) by each of the following methods, showing the figures used.

- (a) Straight-line for 2018
- (b) Double-declining balance for 2019
- (c) Sum-of-the-years'-digits for 2019

Solution 11-140

(a)	$\frac{1}{8} \times €450,000 \times \frac{3}{4}$	=	<u>€42,188</u>
(b)	2019: $25\% \times €406,250$	=	<u>€101,563</u>
(c)	$\frac{8}{36} \times €450,000 \times \frac{1}{4}$	=	€25,000
	$\frac{7}{36} \times €450,000 \times \frac{3}{4}$	=	<u>65,625</u>
			<u>€90,625</u>

Ex. 11-141—Asset depreciation and disposition.

Answer each of the following questions.

1. A plant asset purchased for £150,000 has an estimated life of 10 years and a residual value of £12,000. Depreciation for the *second year of use*, determined by the declining-balance method at twice the straight-line rate is \$_____.
2. A plant asset purchased for £200,000 at the beginning of the year has an estimated life of 5 years and a residual value of £20,000. Depreciation for the *second year*, determined by the sum-of-the-years'-digits method is \$_____.
3. A plant asset with a cost of £216,000, estimated life of 5 years, and residual value of £36,000, is depreciated by the straight-line method. This asset is sold for £160,000 at the end of the second year of use. The gain or loss on the disposal (indicate by "G" or "L") is \$_____.

Solution 11-141

1. £24,000
2. £48,000
3. £16,000 G

Ex. 11-142—Component Depreciation

Presented below are the components related to an office building that Lockard Company purchased for €10,000,000 in January of 2019.

<u>Component</u>	<u>Useful Life</u>	<u>Value</u>
Building structure	60-year life	5,400,000
Building engineering	30-year life	2,400,000
Building external works	30-year life	900,000

Instructions

- (a) Compute depreciation expense for 2019, assuming that Lockard uses component depreciation and uses the straight-line method of depreciation.
- (b) Assume that the building engineering was replaced in 20 years at a cost of €2,600,000. Prepare the entry to record the replacement of the old component with the new component.

Solution 11-142

<u>(a) Component</u>	<u>Depreciation Expense</u>
Building structure	€5,400,000 ÷ 60 = € 90,000
Building engineering	2,400,000 ÷ 30 = 80,000
Building external works	900,000 ÷ 30 = <u>30,000</u>
	<u>€200,000</u>

11 - 34 Test Bank for Intermediate Accounting, IFRS Edition, 3e

(b) Building Engineering.....	2,600,000	
Accumulated Depreciation		
(€2,400,000 X 20/30).....	1,600,000	
Loss on Disposal of Plant Assets.....	800,000	
Building Engineering.....		2,400,000
Cash.....		2,600,000

Ex. 11-143—Impairment

Presented below is information related to equipment owned by Marley Company at December 31, 2018.

Cost	€7,000,000
Accumulated depreciation to date	1,500,000
Value-in-use	5,000,000
Fair value less cost of disposal	4,400,000

Assume that Marley will continue to use this asset in the future. As of December 31, 2018, the equipment has a remaining useful of 4 years.

Instructions

- (a) Prepare the journal entry (if any) to record the impairment of the asset at December 31, 2018.
- (b) Prepare the journal entry to record depreciation expense for 2019.
- (c) The recoverable amount of the equipment at December 31, 2019, is €5,250,000. Prepare the journal entry (if any) necessary to record this increase.

Solution 11-143

(a)	December 31, 2018	
Loss on Impairment.....		500,000
Accumulated Depreciation—Equipment.....		500,000

Cost.....	€7,000,000
Accumulated Depreciation.....	<u>(1,500,000)</u>
Carrying amount.....	5,500,000
Fair value less cost of disposal	<u>(5,000,000)</u>
Loss on impairment.....	<u>€ 500,000</u>

(b)	December 31, 2019	
Depreciation Expense.....	1,250,000	
Accumulated Depreciation—Equipment.....		1,250,000

New carrying amount.....	€5,000,000
Useful life.....	÷ <u>4 years</u>
Depreciation per year.....	<u>€1,250,000</u>

(c) Accumulated Depreciation—Equipment.....	1,500,000	
Recovery of Impairment Loss.....		1500,000

Ex. 11-144—Depletion allowance.

Rojas Company purchased for €5,600,000 a mine estimated to contain 2 million tons of ore. When the ore is completely extracted, it was expected that the land would be worth €200,000. A building and equipment costing €2,800,000 were constructed on the mine site, and they will be completely used up and have *no residual value* when the ore is exhausted. During the first year, 750,000 tons of ore were mined, and €450,000 was spent for labor and other operating costs.

Instructions

Compute the total cost per ton of ore mined in the first year. (Show computations by setting up a schedule giving cost per ton.)

Solution 11-144

<u>Item</u>	<u>Base</u>	<u>Tons</u>	<u>Per Ton</u>
Ore	€5,400,000	2,000,000	€2.70
Building and Equipment	2,800,000	2,000,000	1.40
Labor and Operating Expenses	450,000	750,000	<u>.60</u>
Total Cost			<u>€4.70</u>

Ex. 11-145—Revaluation Accounting

Sizemore Company owns land that it purchased at a cost of £600,000 in 2016. The company chooses to use revaluation accounting to account for the land. The land's value fluctuate as follows (all amounts as of December 31): 2016, £675,000; 2017, £540,000; 2018, £580,000; and 2019, £615,000.

Instructions

Prepare the journal entries to record the revaluation of the land in each year.

Solution 11-145

<u>December 31, 2016</u>		
Land (£675,000 – £600,000).....	75,000	
Unrealized Gain on Revaluation—Land.....		75,000
<u>December 31, 2017</u>		
Unrealized Gain on Revaluation—Land.....	75,000	
Loss on Impairment (£600,000 – £540,000).....	60,000	
Land (£675,000 – £540,000).....		135,000
<u>December 31, 2018</u>		
Land (£580,000 – £540,000).....	40,000	
Recovery of Impairment Loss.....		40,000
<u>December 31, 2019</u>		
Land (£615,000 – £580,000).....	35,000	
Recovery of Impairment Loss (£60,000 - £40,000).....		20,000
Unrealized Gain on Revaluation—Land.....		15,000

Ex. 11-146—Revaluation Accounting

Merando Company acquired equipment on January 1, 2017, for €60,000. Merando elects to value this class of equipment using revaluation accounting. This equipment is being depreciated on a straight-line basis over its 6-year useful life. There is no residual value at the end of the 6-year period. The appraised value of the equipment approximates the carrying amount at December 31, 2017 and 2019. On December 31, 2018, the fair value of the equipment is determined to be €35,000.

Instructions

- (a) Prepare the journal entries for 2017 related to the equipment.
- (b) Prepare the journal entries for 2018 related to the equipment.
- (c) Determine the amount of depreciation expense that Merando will record on the equipment in 2019.

Solution 11-146

(a)	<u>January 1, 2017</u>		
	Equipment.....	60,000	
	Cash.....		60,000
	<u>December 31, 2017</u>		
	Depreciation Expense.....	10,000	
	Accumulated Depreciation—Equipment.....		10,000
(b)	<u>December 31, 2018</u>		
	Depreciation Expense.....	10,000	
	Accumulated Depreciation—Equipment.....		10,000
	Accumulated Depreciation—Equipment.....	20,000	
	Loss on Impairment.....	5,000	
	Equipment (€60,000 – €35,000).....		25,000
(c)	Depreciation expense—2019: (€60,000 – €25,000) ÷ 4 = <u>€8,750</u>		

PROBLEMS

Pr. 11-147—Depreciation methods.

On July 1, 2018, Sparks Company purchased for €2,160,000 snow-making equipment having an estimated useful life of 5 years with an estimated residual value of €90,000. Depreciation is taken for the portion of the year the asset is used.

Instructions

- (a) Complete the form below by determining the depreciation expense and year-end book values for 2018 and 2019 using the
1. sum-of-the-years'-digits method.
 2. double-declining balance method.

<u>Sum-of-the-Years'-Digits Method</u>	<u>2018</u>	<u>2019</u>
Equipment	€2,160,000	€2,160,000
Less: Accumulated Depreciation	_____	_____
Year-End Book Value	_____	_____
Depreciation Expense for the Year	_____	_____
 <u>Double-Declining Balance Method</u>		
Equipment	€2,160,000	€2,160,000
Less: Accumulated Depreciation	_____	_____
Year-End Book Value	_____	_____
Depreciation Expense for the Year	_____	_____

- (b) Assume the company had used straight-line depreciation during 2018 and 2019. During 2020, the company determined that the equipment would be useful to the company for only one more year beyond 2020. Residual value is estimated at €120,000. Compute the amount of depreciation expense for the 2020 income statement.

Solution 11-147

(a) <u>Sum-of-the-Years'-Digits</u>	<u>2018</u>	<u>2019</u>
Accumulated Depreciation	€ 345,000	€ 966,000
Book Value	1,815,000	1,194,000
Depreciation Expense	345,000	621,000
 <u>Double-Declining Balance</u>		
Accumulated Depreciation	€ 432,000	€1,123,200
Book Value	1,728,000	1,036,800
Depreciation Expense	432,000	691,200

- | | |
|--------------|--|
| (b) Cost | €2,160,000 |
| Depreciation | (621,000) |
| Residual | <u>(120,000)</u> |
| | €1,419,000 × 1/2 = <u>€709,500</u> , 2020 depreciation |

Pr. 11-148—Adjustment of Depreciable Base.

A truck was acquired on July 1, 2016, at a cost of £216,000. The truck had a six-year useful life and an estimated residual value of £24,000. The straight-line method of depreciation was used. On January 1, 2019, the truck was overhauled at a cost of £20,000, which extended the useful life of the truck for an additional two years beyond that originally estimated (residual value is still estimated at £24,000). In computing depreciation for annual adjustment purposes, expense is calculated for each month the asset is owned.

Instructions

Prepare the appropriate entries for January 1, 2019 and December 31, 2019.

Solution 11-148

Cost	£216,000	
Less residual value	<u>24,000</u>	
Depreciable base, July 1, 2016	192,000	
Less depreciation to date $[(£192,000 \div 6) \times 2 \frac{1}{2}]$	<u>80,000</u>	
Depreciable base, Jan. 1, 2019 (unadjusted)	112,000	
Overhaul	<u>20,000</u>	
Depreciable base, Jan. 1, 2019(adjusted)	<u>£132,000</u>	

January 1, 2019

Accumulated Depreciation.....	20,000	
Cash.....		20,000

December 31, 2019

Depreciation Expense.....	24,000	
Accumulated Depreciation $(£132,000 \div 5.5 \text{ yrs})$		24,000