

CHAPTER 12

INTANGIBLE ASSETS

TRUE-FALSE—Conceptual

Answer	No.	Description
F	1.	Characteristics of intangible assets.
F	2.	Internally created intangibles.
F	3.	Recording internally generated intangibles.
F	4.	Amortization of limited-life intangible assets.
T	5.	Amortization of intangible assets.
T	6.	Amortizing limited-life intangibles.
T	7.	Accounting for a customer list.
F	8.	Amortization of patents.
T	9.	Modification of an existing patent.
T	10.	Basic concept of goodwill.
T	11.	Internally generated goodwill.
F	12.	Recording internally generated goodwill.
T	13.	Impairment of intangibles.
T	14.	Recognition of impairment loss.
F	15.	Recovery of impairment loss.
F	16.	Impairment of intangibles.
T	17.	Example of research and development costs.
F	18.	Capitalizing research and development costs.
T	19.	Recording research and development costs.
F	20.	Reporting intangible assets.

MULTIPLE CHOICE—Conceptual

Answer	No.	Description
c	21.	Accounting for internally-created intangibles.
b	22.	Amortization methods for intangible assets.
d	23.	Cost of intangible asset.
d	24.	Factors in determining useful life.
b	^S 25.	Classifying intangible assets.
d	26.	Patent amortization.
c	27.	Patent amortization.
d	28.	Legal fees associated with patent infringement.
b	29.	Identification of intangible assets.
c	30.	Amortization of intangible assets.
a	31.	Entry to record patent amortization.
c	^S 32.	Accounting for goodwill.
b	^S 33.	Goodwill as master valuation account.
a	34.	Reporting of "negative goodwill."
d	35.	Accounting for goodwill.
a	36.	Recording goodwill.
b	37.	Impairment of intangible asset.
c	^S 38.	Impairment test for indefinite-life intangibles.
b	^P 39.	Accounting for organization costs.

MULTIPLE CHOICE—Conceptual (cont.)

Answer	No.	Description
a	40.	Capitalization of certain R & D costs.
d	41.	Accounting principle for R & D expenditures.
d	42.	Accounting for R & D costs.
c	43.	Costs excluded from R & D expense.
b	44.	Depreciation of laboratory building used in R & D.
a	45.	Operating losses during start-up period.
d	^P 46.	Accounting for organization costs.
a	^S 47.	Classification of R & D expense.
c	^P 48.	Reporting patent amortization.

^P These questions also appear in the Problem-Solving Survival Guide.

^S These questions also appear in the Study Guide.

* This topic is dealt with in an Appendix to the chapter.

MULTIPLE CHOICE—Computational

Answer	No.	Description
d	49.	Valuation of patent.
d	50.	Valuation of patent.
c	51.	Intangible asset amortization.
c	52.	Intangible asset amortization.
b	53.	Computing patent amortization expense.
b	54.	Computing patent amortization expense.
c	55.	Calculate total intangible assets.
b	56.	Determine amount of worthless patent to be written off.
b	57.	Calculate patent amortization.
a	58.	Calculate trademark amortization.
c	59.	Exchange of similar intangible assets.
b	60.	Calculate patent amortization.
c	61.	Calculate goodwill amount.
c	62.	Calculate goodwill amount.
d	63.	Calculate amount of goodwill.
a	64.	Calculate goodwill impairment.
b	65.	Proper accounting when fair value of net assets acquired exceeds cost.
b	66.	Calculate impairment loss.
c	67.	Calculate patent carrying value.
d	68.	Calculate patent carrying value.
b	69.	Calculate loss on impairment of goodwill.
b	70.	Calculate loss on impairment of goodwill.
d	71.	Calculate R & D expense.
c	72.	Calculate R & D expense.
c	73.	Calculate R & D expense.
a	74.	Calculate R & D expense.
a	75.	Calculate R & D expense.
c	*76.	Computing computer software costs.
c	*77.	Computing computer software costs.

MULTIPLE CHOICE—CPA Adapted

Answer	No.	Description
a	78.	Determine capitalized patent costs.
c	79.	Valuation of patent exchanged for common stock.
d	80.	Valuation of patent exchanged for treasury stock.
d	81.	Valuation and amortization of a patent.
c	82.	Amortization of a patent.
d	83.	Amortization of a trademark.
c	84.	Capitalization of legal fees.
a	85.	Amortization of goodwill.
c	86.	Calculate R & D expense.
a	87.	Determine R & D expense for the year.

EXERCISES

Item	Description
E12-88	Short essay questions.
E12-89	Intangible assets questions.
E12-90	Intangible assets theory.
E12-91	Carrying value of patent.
E12-92	Accounting for patent.
E12-93	Impairment of copyrights.
E12-94	Acquisition of tangible and intangible assets.

PROBLEMS

Item	Description
P12-95	Intangible assets.
P12-96	Goodwill, impairment.

CHAPTER LEARNING OBJECTIVES

1. Describe the characteristics of intangible assets.
2. Identify the costs to include in the initial valuation of intangible assets.
3. Explain the procedure for amortizing intangible assets.
4. Describe the types of intangible assets.
5. Explain the conceptual issues related to goodwill.
6. Describe the accounting procedures for recording goodwill.
7. Explain the accounting issues related to intangible-asset impairments.
8. Identify the conceptual issues related to research and development costs.
9. Describe the accounting procedures for research and development costs and for other similar costs.
10. Indicate the presentation of intangible assets and related items.
- *11. Understand the accounting for computer software costs.

SUMMARY OF LEARNING OBJECTIVES BY QUESTIONS

Item	Type	Item	Type	Item	Type	Item	Type	Item	Type	Item	Type	Item	Type
Learning Objective 1													
1.	TF	83.	E										
Learning Objective 2													
2.	TF	3.	TF	21.	MC	49.	MC	50.	MC				
Learning Objective 3													
4.	TF	6.	TF	23.	MC	^S 25.	MC	52.	MC	90.	E		
5.	TF	22.	MC	24.	MC	51.	MC	89.	E				
Learning Objective 4													
7.	TF	27.	MC	53.	MC	57.	MC	78.	MC	82.	MC	91.	E
8.	TF	28.	MC	54.	MC	58.	MC	79.	MC	83.	MC	92.	E
9.	TF	29.	MC	55.	MC	59.	MC	80.	MC	84.	MC	93.	E
26.	MC	30.	MC	56.	MC	60.	MC	81.	MC	89.	E	95.	P
Learning Objective 5													
10.	TF	31.	MC	^S 32.	MC	85.	MC	88.	E	89.	E	96.	P
Learning Objective 6													
11.	TF	^S 33.	MC	35.	MC	61.	MC	63.	MC	65.	MC	94.	E
12.	TF	34.	MC	36.	MC	62.	MC	64.	MC	89.	E		
Learning Objective 7													
13.	TF	15.	TF	37.	MC	66.	MC	68.	MC	70.	MC	93.	E
14.	TF	16.	TF	^S 38.	MC	67.	MC	69.	MC	92.	E	96.	P
Learning Objective 8													
17.	TF	18.	TF	^P 39.	MC	40.	MC	41.	MC	42.	MC		
Learning Objective 9													
19.	TF	45.	MC	71.	MC	74.	MC	86.	MC				
43.	MC	^P 46.	MC	72.	MC	75.	MC	87.	MC				
44.	MC	^S 47.	MC	73.	MC	78.	MC	95.	P				
Learning Objective 10													
20.	TF	^P 48.	MC										
Learning Objective *11													
76.	MC	77.	MC										

Note: TF = True-False
 MC = Multiple Choice
 E = Exercise
 P = Problem

TRUE-FALSE—Conceptual

1. Intangible assets derive their value from the right (claim) to receive cash in the future.
2. Internally created intangibles are recorded at cost.
3. Internally generated intangible assets are initially recorded at fair value.
4. Amortization of limited-life intangible assets should not be impacted by expected residual values.
5. Some intangible assets are not required to be amortized every year.
6. Limited-life intangibles are amortized by systematic charges to expense over their useful life.
7. The cost of acquiring a customer list from another company is recorded as an intangible asset.
8. The cost of purchased patents should be amortized over the remaining legal life of the patent.
9. If a new patent is acquired through modification of an existing patent, the remaining book value of the original patent may be amortized over the life of the new patent.
10. In a business combination, a company assigns the cost, where possible, to the identifiable tangible and intangible assets, with the remainder recorded as goodwill.
11. Internally generated goodwill should not be capitalized in the accounts.
12. Internally generated goodwill associated with a business may be recorded as an asset when a firm offer to purchase that business unit has been received.
13. All intangibles are subject to periodic consideration of impairment with corresponding potential write-downs.
14. If the fair value of an unlimited life intangible other than goodwill is less than its book value, an impairment loss must be recognized.
15. If market value of an impaired asset recovers after an impairment has been recognized, the impairment may be reversed in a subsequent period.
16. The same recoverability test that is used for impairments of property, plant, and equipment is used for impairments of indefinite-life intangibles.
17. Periodic alterations to existing products are an example of research and development costs.
18. Research and development costs that result in patents may be capitalized to the extent of the fair value of the patent.

19. Research and development costs are recorded as an intangible asset if it is felt they will provide economic benefits in future years.
20. Contra accounts must be reported for intangible assets in a manner similar to accumulated depreciation and property, plant, and equipment.

True-False Answers—Conceptual

Item	Ans.	Item	Ans.	Item	Ans.	Item	Ans.
1.	F	6.	T	11.	T	16.	F
2.	F	7.	T	12.	F	17.	T
3.	F	8.	F	13.	T	18.	F
4.	F	9.	T	14.	T	19.	T
5.	T	10.	T	15.	F	20.	F

MULTIPLE CHOICE—Conceptual

21. Costs incurred internally to create intangibles are
 - a. capitalized.
 - b. capitalized if they have an indefinite life.
 - c. expensed as incurred.
 - d. expensed only if they have a limited life.
22. Which of the following methods of amortization is normally used for intangible assets?
 - a. Sum-of-the-years'-digits
 - b. Straight-line
 - c. Units of production
 - d. Double-declining-balance
23. The cost of an intangible asset includes all of the following *except*
 - a. purchase price.
 - b. legal fees.
 - c. other incidental expenses.
 - d. all of these are included.
24. Factors considered in determining an intangible asset's useful life include all of the following *except*
 - a. the expected use of the asset.
 - b. any legal or contractual provisions that may limit the useful life.
 - c. any provisions for renewal or extension of the asset's legal life
 - d. the amortization method used.
25. Under current accounting practice, intangible assets are classified as
 - a. amortizable or unamortizable.
 - b. limited-life or indefinite-life.
 - c. specifically identifiable or goodwill-type.
 - d. legally restricted or goodwill-type.

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26. The cost of purchasing patent rights for a product that might otherwise have seriously competed with one of the purchaser's patented products should be
- charged off in the current period.
 - amortized over the legal life of the purchased patent.
 - added to factory overhead and allocated to production of the purchaser's product.
 - amortized over the remaining estimated life of the original patent covering the product whose market would have been impaired by competition from the newly patented product.
27. Riser Corporation was granted a patent on a product on January 1, 1998. To protect its patent, the corporation purchased on January 1, 2007 a patent on a competing product which was originally issued on January 10, 2003. Because of its unique plant, Riser Corporation does not feel the competing patent can be used in producing a product. The cost of the competing patent should be
- amortized over a maximum period of 20 years.
 - amortized over a maximum period of 16 years.
 - amortized over a maximum period of 11 years.
 - expensed in 2007.
28. Wriglee, Inc. went to court this year and successfully defended its patent from infringement by a competitor. The cost of this defense should be charged to
- patents and amortized over the legal life of the patent.
 - legal fees and amortized over 5 years or less.
 - expenses of the period.
 - patents and amortized over the remaining useful life of the patent.
29. Which of the following is *not* an intangible asset?
- Trade name
 - Research and development costs
 - Franchise
 - Copyrights
30. Which of the following intangible assets should *not* be amortized?
- Copyrights
 - Customer lists
 - Perpetual franchises
 - All of these intangible assets should be amortized.
31. When a patent is amortized, the credit is usually made to
- the Patent account.
 - an Accumulated Amortization account.
 - a Deferred Credit account.
 - an expense account.
32. Goodwill
- generated internally should not be capitalized unless it is measured by an individual independent of the enterprise involved.
 - is easily computed by assigning a value to the individual attributes that comprise its existence.
 - represents a unique asset in that its value can be identified only with the business as a whole.
 - exists in any company that has earnings that differ from those of a competitor.

33. The reason goodwill is sometimes referred to as a master valuation account is because
- it represents the purchase price of a business that is about to be sold.
 - it is the difference between the fair market value of the net tangible and identifiable intangible assets as compared with the purchase price of the acquired business.
 - the value of a business is computed without consideration of goodwill and then goodwill is added to arrive at a master valuation.
 - it is the only account in the financial statements that is based on value, all other accounts are recorded at an amount other than their value.
34. Easton Company and Lofton Company were combined in a purchase transaction. Easton was able to acquire Lofton at a bargain price. The sum of the market or appraised values of identifiable assets acquired less the fair value of liabilities assumed exceeded the cost to Easton. After revaluing noncurrent assets to zero, there was still some "negative goodwill." Proper accounting treatment by Easton is to report the amount as
- an extraordinary gain.
 - part of current income in the year of combination.
 - a deferred credit and amortize it.
 - paid-in capital.
35. Purchased goodwill should
- be written off as soon as possible against retained earnings.
 - be written off as soon as possible as an extraordinary item.
 - be written off by systematic charges as a regular operating expense over the period benefited.
 - not be amortized.
36. The intangible asset goodwill may be
- capitalized only when purchased.
 - capitalized either when purchased or created internally.
 - capitalized only when created internally.
 - written off directly to retained earnings.
37. A loss on impairment of an intangible asset is the difference between the asset's
- carrying amount and the expected future net cash flows.
 - carrying amount and its fair value.
 - fair value and the expected future net cash flows.
 - book value and its fair value.
38. Weaver Boxing Company needs to determine if its indefinite-life intangibles other than goodwill have been impaired and should be reduced or written off on its balance sheet. The impairment test(s) to be used is (are)
- | | <u>Recoverability Test</u> | <u>Fair Value Test</u> |
|----|----------------------------|------------------------|
| a. | Yes | Yes |
| b. | Yes | No |
| c. | No | Yes |
| d. | No | No |
39. The carrying amount of an intangible is
- the fair market value of the asset at a balance sheet date.
 - the asset's acquisition cost less the total related amortization recorded to date.
 - equal to the balance of the related accumulated amortization account.
 - the assessed value of the asset for intangible tax purposes.

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40. Which of the following research and development related costs should be capitalized and amortized over current and future periods?
- a. Research and development general laboratory building which can be put to alternative uses in the future
 - b. Inventory used for a specific research project
 - c. Administrative salaries allocated to research and development
 - d. Research findings purchased from another company to aid a particular research project currently in process
41. Which of the following principles *best* describes the current method of accounting for research and development costs?
- a. Associating cause and effect
 - b. Systematic and rational allocation
 - c. Income tax minimization
 - d. Immediate recognition as an expense
42. How should research and development costs be accounted for, according to a Financial Accounting Standards Board Statement?
- a. Must be capitalized when incurred and then amortized over their estimated useful lives.
 - b. Must be expensed in the period incurred.
 - c. May be either capitalized or expensed when incurred, depending upon the materiality of the amounts involved.
 - d. Must be expensed in the period incurred unless it can be clearly demonstrated that the expenditure will have alternative future uses or unless contractually reimbursable.
43. Which of the following costs should be *excluded* from research and development expense?
- a. Modification of the design of a product
 - b. Acquisition of R & D equipment for use on a current project only
 - c. Cost of marketing research for a new product
 - d. Engineering activity required to advance the design of a product to the manufacturing stage
44. If a company constructs a laboratory building to be used as a research and development facility, the cost of the laboratory building is matched against earnings as
- a. research and development expense in the period(s) of construction.
 - b. depreciation deducted as part of research and development costs.
 - c. depreciation or immediate write-off depending on company policy.
 - d. an expense at such time as productive research and development has been obtained from the facility.
45. Operating losses incurred during the start-up years of a new business should be
- a. accounted for and reported like the operating losses of any other business.
 - b. written off directly against retained earnings.
 - c. capitalized as a deferred charge and amortized over five years.
 - d. capitalized as an intangible asset and amortized over a period not to exceed 20 years.
46. The costs of organizing a corporation include legal fees, fees paid to the state of incorporation, fees paid to promoters, and the costs of meetings for organizing the promoters. These costs are said to benefit the corporation for the entity's entire life. These costs should be

- a. capitalized and never amortized.
 - b. capitalized and amortized over 40 years.
 - c. capitalized and amortized over 5 years.
 - d. expensed as incurred.
47. Which of the following would not be considered an R & D activity?
- a. Adaptation of an existing capability to a particular requirement or customer's need.
 - b. Searching for applications of new research findings.
 - c. Laboratory research aimed at discovery of new knowledge.
 - d. Conceptual formulation and design of possible product or process alternatives.
48. The total amount of patent cost amortized to date is usually
- a. shown in a separate Accumulated Patent Amortization account which is shown contra to the Patent account.
 - b. shown in the current income statement.
 - c. reflected as credits in the Patent account.
 - d. reflected as a contra property, plant and equipment item.

Multiple Choice Answers—Conceptual

Item	Ans.	Item	Ans.	Item	Ans.	Item	Ans.	Item	Ans.	Item	Ans.	Item	Ans.
21.	c	25.	b	29.	b	33.	b	37.	b	41.	d	45.	a
22.	b	26.	d	30.	c	34.	a	38.	c	42.	d	46.	d
23.	d	27.	c	31.	a	35.	d	39.	b	43.	c	47.	a
24.	d	28.	d	32.	c	36.	a	40.	a	44.	b	48.	c

MULTIPLE CHOICE—Computational

49. Lynne Corporation acquired a patent on May 1, 2008. Lynne paid cash of \$20,000 to the seller. Legal fees of \$800 were paid related to the acquisition. What amount should be debited to the patent account?
- a. \$800
 - b. \$19,200
 - c. \$20,000
 - d. \$20,800
50. Maris Corporation acquired a patent on May 1, 2008. Maris paid cash of \$25,000 to the seller. Legal fees of \$1,000 were paid related to the acquisition. What amount should be debited to the patent account?
- a. \$1,000
 - b. \$24,000
 - c. \$25,000
 - d. \$26,000
51. Jeff Corporation purchased a limited-life intangible asset for \$120,000 on May 1, 2006. It has a useful life of 10 years. What total amount of amortization expense should have been recorded on the intangible asset by December 31, 2008?

- a. \$ -0-
b. \$24,000
c. \$32,000
d. \$36,000
52. Rich Corporation purchased a limited-life intangible asset for \$180,000 on May 1, 2006. It has a useful life of 10 years. What total amount of amortization expense should have been recorded on the intangible asset by December 31, 2008?
a. \$ -0-
b. \$36,000
c. \$48,000
d. \$54,000
53. ELO Corporation purchased a patent for \$180,000 on September 1, 2006. It had a useful life of 10 years. On January 1, 2008, ELO spent \$44,000 to successfully defend the patent in a lawsuit. ELO feels that as of that date, the remaining useful life is 5 years. What amount should be reported for patent amortization expense for 2008?
a. \$41,200.
b. \$40,000.
c. \$37,600.
d. \$31,200.
54. LRF Corporation purchased a patent for \$450,000 on September 1, 2006. It had a useful life of 10 years. On January 1, 2008, LRF spent \$110,000 to successfully defend the patent in a lawsuit. LRF feels that as of that date, the remaining useful life is 5 years. What amount should be reported for patent amortization expense for 2008?
a. \$103,000.
b. \$100,000.
c. \$94,000.
d. \$78,000.
55. The general ledger of Vance Corporation as of December 31, 2007, includes the following accounts:
- | | |
|---|-----------|
| Copyrights | \$ 20,000 |
| Deposits with advertising agency (will be used to promote goodwill) | 27,000 |
| Discount on bonds payable | 67,500 |
| Excess of cost over fair value of identifiable net assets of | |
| Acquired subsidiary | 390,000 |
| Trademarks | 90,000 |
- In the preparation of Vance's balance sheet as of December 31, 2007, what should be reported as total intangible assets?
a. \$594,500.
b. \$527,000.
c. \$500,000.
d. \$460,000.
56. In January, 2002, Findley Corporation purchased a patent for a new consumer product for \$720,000. At the time of purchase, the patent was valid for fifteen years. Due to the competitive nature of the product, however, the patent was estimated to have a useful life of only ten years. During 2007 the product was permanently removed from the market under governmental order because of a potential health hazard present in the product.

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What amount should Findley charge to expense during 2007, assuming amortization is recorded at the end of each year?

- a. \$480,000.
- b. \$360,000.
- c. \$72,000.
- d. \$48,000.

57. Kerr Company purchased a patent on January 1, 2006 for \$180,000. The patent had a remaining useful life of 10 years at that date. In January of 2007, Kerr successfully defends the patent at a cost of \$81,000, extending the patent's life to 12/31/18. What amount of amortization expense would Kerr record in 2007?

- a. \$18,000
- b. \$20,250
- c. \$21,750
- d. \$27,000

58. On January 2, 2007, Klein Co. bought a trademark from Royce, Inc. for \$500,000. An independent research company estimated that the remaining useful life of the trademark was 10 years. Its unamortized cost on Royce's books was \$400,000. In Klein's 2007 income statement, what amount should be reported as amortization expense?

- a. \$50,000.
- b. \$40,000.
- c. \$25,000.
- d. \$20,000.

59. Wildcat Baseball Company had a player contract with Carter that was recorded in its accounting records at \$5,800,000. Aggie Baseball Company had a player contract with Jeter that was recorded in its accounting records at \$5,600,000. Wildcat traded Carter to Aggie for Jeter by exchanging each player's contract. The fair value of each contract was \$6,000,000. What amount should be shown in the accounting records after the exchange of player contracts?

	<u>Wildcat</u>	<u>Aggie</u>
a.	\$5,600,000	\$5,600,000
b.	\$5,600,000	\$5,800,000
c.	\$5,800,000	\$5,600,000
d.	\$6,000,000	\$6,000,000

60. A company acquires a patent for a drug with a remaining legal and useful life of six years on January 1, 2005 for \$1,200,000. The company uses straight-line amortization for patents. On January 2, 2007, a new patent is received for a timed-release version of the same drug. The new patent has a legal and useful life of twenty years. The least amount of amortization that could be recorded in 2007 is

- a. \$200,000.
- b. \$40,000.
- c. \$54,545.
- d. \$60,000.

61. Blue Sky Company's 12/31/08 balance sheet reports assets of \$5,000,000 and liabilities of \$2,000,000. All of Blue Sky's assets' book values approximate their fair value, except for land, which has a fair value that is \$300,000 greater than its book value. On 12/31/08, Horace Wimp Corporation paid \$5,100,000 to acquire Blue Sky. What amount of goodwill should Horace Wimp record as a result of this purchase?
- \$ -0-
 - \$100,000
 - \$1,800,000
 - \$2,100,000
62. Turner Company's 12/31/08 balance sheet reports assets of \$6,000,000 and liabilities of \$2,500,000. All of Turner's assets' book values approximate their fair value, except for land, which has a fair value that is \$400,000 greater than its book value. On 12/31/08, Benedict Corporation paid \$6,100,000 to acquire Turner. What amount of goodwill should Benedict record as a result of this purchase?
- \$ -0-
 - \$ 100,000
 - \$2,200,000
 - \$2,600,000
63. Distributor Company purchases Supplier Company for \$800,000 cash on January 1, 2007. The book value of Supplier Company's net assets, as reflected on its December 31, 2006 balance sheet is \$620,000. An analysis by Distributor on December 31, 2006 indicates that the fair value of Supplier's tangible assets exceeded the book value by \$60,000, and the fair value of identifiable intangible assets exceeded book value by \$45,000. How much goodwill should be recognized by Distributor Company when recording the purchase of Supplier Company?
- \$ -0-
 - \$180,000
 - \$120,000
 - \$75,000
64. General Products Company bought Special Products Division in 2006 and appropriately booked \$250,000 of goodwill related to the purchase. On December 31, 2007, the fair value of Special Products Division is \$2,000,000 and it is carried on General Product's books for a total of \$1,700,000, including the goodwill. An analysis of Special Products Division's assets indicates that goodwill of \$200,000 exists on December 31, 2007. What goodwill impairment should be recognized by General Products in 2007?
- \$0.
 - \$200,000.
 - \$50,000.
 - \$300,000.
65. During 2007, Bond Company purchased the net assets of May Corporation for \$950,000. On the date of the transaction, May had \$300,000 of liabilities. The fair value of May's assets when acquired were as follows:

Current assets	\$ 540,000
Noncurrent assets	<u>1,260,000</u>
	<u><u>\$1,800,000</u></u>

How should the \$550,000 difference between the fair value of the net assets acquired (\$1,500,000) and the cost (\$950,000) be accounted for by Bond?

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- a. The \$550,000 difference should be credited to retained earnings.
 - b. The \$550,000 difference should be recognized as an extraordinary gain.
 - c. The current assets should be recorded at \$375,000 and the noncurrent assets should be recorded at \$875,000.
 - d. A deferred credit of \$550,000 should be set up and then amortized to income over a period not to exceed forty years.
66. The following information is available for Barkley Company's patents:
- | | |
|--------------------------------|-------------|
| Cost | \$1,720,000 |
| Carrying amount | 860,000 |
| Expected future net cash flows | 800,000 |
| Fair value | 640,000 |
- Barkley would record a loss on impairment of
- a. \$1,080,000.
 - b. \$220,000.
 - c. \$160,000.
 - d. \$60,000.
67. Mining Company acquired a patent on an oil extraction technique on January 1, 2006 for \$5,000,000. It was expected to have a 10 year life and no residual value. Mining uses straight-line amortization for patents. On December 31, 2007, the expected future cash flows expected from the patent were expected to be \$600,000 per year for the next eight years. The present value of these cash flows, discounted at Mining's market interest rate, is \$2,800,000. At what amount should the patent be carried on the December 31, 2007 balance sheet?
- a. \$5,000,000
 - b. \$4,800,000
 - c. \$4,000,000
 - d. \$2,800,000
68. Malrom Manufacturing Company acquired a patent on a manufacturing process on January 1, 2006 for \$10,000,000. It was expected to have a 10 year life and no residual value. Malrom uses straight-line amortization for patents. On December 31, 2007, the expected future cash flows expected from the patent were expected to be \$800,000 per year for the next eight years. The present value of these cash flows, discounted at Malrom's market interest rate, is \$4,800,000. At what amount should the patent be carried on the December 31, 2007 balance sheet?
- a. \$10,000,000
 - b. \$8,000,000
 - c. \$6,400,000
 - d. \$4,800,000
69. Twilight Corporation acquired End-of-the-World Products on January 1, 2008 for \$2,000,000, and recorded goodwill of \$375,000 as a result of that purchase. At December 31, 2008, the End-of-the-World Products Division had a fair value of \$1,700,000. The net identifiable assets of the Division (excluding goodwill) had a fair value of \$1,450,000 at that time. What amount of loss on impairment of goodwill should Twilight record in 2008?
- a. \$ -0-
 - b. \$125,000
 - c. \$175,000
 - d. \$300,000

70. Fleming Corporation acquired Out-of-Sight Products on January 1, 2008 for \$4,000,000, and recorded goodwill of \$750,000 as a result of that purchase. At December 31, 2008, the Out-of-Sight Products Division had a fair value of \$3,400,000. The net identifiable assets of the Division (excluding goodwill) had a fair value of \$2,900,000 at that time. What amount of loss on impairment of goodwill should Fleming record in 2008?

a. \$ -0-
 b. \$250,000
 c. \$350,000
 d. \$600,000

71. In 2006, Edwards Corporation incurred research and development costs as follows:

Materials and equipment	\$ 80,000
Personnel	120,000
Indirect costs	<u>150,000</u>
	<u>\$350,000</u>

These costs relate to a product that will be marketed in 2007. It is estimated that these costs will be recouped by December 31, 2009. The equipment has no alternative future use. What is the amount of research and development costs that should be expensed in 2006?

a. \$0.
 b. \$200,000.
 c. \$270,000.
 d. \$350,000.

72. Hall Co. incurred research and development costs in 2007 as follows:

Materials used in research and development projects	\$ 450,000
Equipment acquired that will have alternate future uses in future research and development projects	3,000,000
Depreciation for 2007 on above equipment	300,000
Personnel costs of persons involved in research and development projects	750,000
Consulting fees paid to outsiders for research and development projects	150,000
Indirect costs reasonably allocable to research and development projects	<u>225,000</u>
	<u>\$4,875,000</u>

The amount of research and development costs charged to Hall's 2007 income statement should be

a. \$1,500,000.
 b. \$1,650,000.
 c. \$1,875,000.
 d. \$4,050,000.

73. Martin Inc. incurred the following costs during the year ended December 31, 2007:

Laboratory research aimed at discovery of new knowledge	\$180,000
Costs of testing prototype and design modifications	45,000
Quality control during commercial production, including routine testing of products	270,000
Construction of research facilities having an estimated useful life of 6 years but no alternative future use	360,000

The total amount to be classified and expensed as research and development in 2007 is

- a. \$555,000.
- b. \$855,000.
- c. \$585,000.
- d. \$285,000.

74. MaBelle Corporation incurred the following costs in 2008:

Acquisition of R&D equipment with a useful life of 4 years in R&D projects	\$600,000
Start-up costs incurred when opening a new plant	140,000
Advertising expense to introduce a new product	700,000
Engineering costs incurred to advance a product to full production stage	350,000

What amount should MaBelle record as research & development expense in 2008?

- a. \$500,000
- b. \$640,000
- c. \$950,000
- d. \$1,340,000

75. Leeper Corporation incurred the following costs in 2008:

Acquisition of R&D equipment with a useful life of 4 years in R&D projects	\$800,000
Start-up costs incurred when opening a new plant	140,000
Advertising expense to introduce a new product	700,000
Engineering costs incurred to advance a product to full production stage	500,000

What amount should Leeper record as research & development expense in 2008?

- a. \$700,000
- b. \$840,000
- c. \$1,300,000
- d. \$1,540,000

*76. Shangra-La Company incurred \$1,500,000 (\$400,000 in 2007 and \$1,100,000 in 2008) to develop a computer software product. \$500,000 of this amount was expended before technological feasibility was established in early 2008. The product will earn future revenues of \$4,000,000 over its 5-year life, as follows: 2008 – \$1,000,000; 2009 – \$1,000,000; 2010 – \$800,000; 2011 – \$800,000; and 2012 – \$400,000. What portion of the \$1,500,000 computer software costs should be expensed in 2008?

- a. \$250,000
- b. \$300,000
- c. \$350,000
- d. \$1,100,000

*77. Pesavento Company incurred \$3,000,000 (\$800,000 in 2007 and \$2,200,000 in 2008) to develop a computer software product. \$1,000,000 of this amount was expended before technological feasibility was established in early 2008. The product will earn future revenues of \$8,000,000 over its 5-year life, as follows: 2008 – \$2,000,000; 2009 – \$2,000,000; 2010 – \$1,600,000; 2011 – \$1,600,000; and 2012 – \$800,000. What portion of the \$3,000,000 computer software costs should be expensed in 2008?

- a. \$500,000.
- b. \$600,000.
- c. \$700,000.
- d. \$2,200,000.

Multiple Choice Answers—Computational

Item	Ans.	Item	Ans.	Item	Ans.	Item	Ans.	Item	Ans.	Item	Ans.
49.	d	54.	b	59.	c	64.	a	69.	b	74.	a
50.	d	55.	c	60.	b	65.	b	70.	b	75.	a
51.	c	56.	b	61.	c	66.	b	71.	d	*76.	c
52.	c	57.	b	62.	c	67.	c	72.	c	*77.	c
53.	b	58.	a	63.	d	68.	d	73.	c		

MULTIPLE CHOICE—CPA Adapted

78. Lopez Corp. incurred \$420,000 of research and development costs to develop a product for which a patent was granted on January 2, 2002. Legal fees and other costs associated with registration of the patent totaled \$80,000. On March 31, 2007, Lopez paid \$120,000 for legal fees in a successful defense of the patent. The total amount capitalized for the patent through March 31, 2007 should be
- a. \$200,000.
 - b. \$500,000.
 - c. \$540,000.
 - d. \$620,000.
79. On June 30, 2007, Cey, Inc. exchanged 2,000 shares of Seely Corp. \$30 par value common stock for a patent owned by Gore Co. The Seely stock was acquired in 2007 at a cost of \$55,000. At the exchange date, Seely common stock had a fair value of \$45 per share, and the patent had a net carrying value of \$110,000 on Gore's books. Cey should record the patent at
- a. \$55,000.
 - b. \$60,000.
 - c. \$90,000.
 - d. \$110,000.
80. On May 5, 2007, Flynn Corp. exchanged 2,000 shares of its \$25 par value treasury common stock for a patent owned by Denson Co. The treasury shares were acquired in 2006 for \$45,000. At May 5, 2007, Flynn's common stock was quoted at \$32 per share, and the patent had a carrying value of \$55,000 on Denson's books. Flynn should record the patent at
- a. \$45,000.
 - b. \$50,000.
 - c. \$55,000.
 - d. \$64,000.

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81. Ely Co. bought a patent from Baden Corp. on January 1, 2007, for \$300,000. An independent consultant retained by Ely estimated that the remaining useful life is 30 years. Its unamortized cost on Baden's accounting records was \$150,000; the patent had been amortized for 5 years by Baden. How much should be amortized for the year ended December 31, 2007?
- \$0.
 - \$5,000.
 - \$10,000.
 - \$20,000.
82. January 2, 2004, Koll, Inc. purchased a patent for a new consumer product for \$180,000. At the time of purchase, the patent was valid for 15 years; however, the patent's useful life was estimated to be only 10 years due to the competitive nature of the product. On December 31, 2007, the product was permanently withdrawn from sale under governmental order because of a potential health hazard in the product. What amount should Koll charge against income during 2007, assuming amortization is recorded at the end of each year?
- \$18,000
 - \$108,000
 - \$126,000
 - \$144,000
83. On January 1, 2003, Unruh Company purchased a copyright for \$800,000, having an estimated useful life of 16 years. In January 2007, Unruh paid \$120,000 for legal fees in a successful defense of the copyright. Copyright amortization expense for the year ended December 31, 2007, should be
- \$0.
 - \$50,000.
 - \$57,500.
 - \$60,000.
84. Which of the following legal fees should be capitalized?
- | | <u>Legal fees to
obtain a copyright</u> | <u>Legal fees to successfully
defend a trademark</u> |
|----|---|--|
| a. | No | No |
| b. | No | Yes |
| c. | Yes | Yes |
| d. | Yes | No |
85. Which of the following costs of goodwill should be amortized over their estimated useful lives?
- | | <u>Costs of goodwill from a
business combination
accounted for as a purchase</u> | <u>Costs of developing
goodwill internally</u> |
|----|--|--|
| a. | No | No |
| b. | No | Yes |
| c. | Yes | Yes |
| d. | Yes | No |

86. During 2007, Leon Co. incurred the following costs:

Testing in search for process alternatives	\$ 350,000
Costs of marketing research for new product	250,000
Modification of the formulation of a process	510,000
Research and development services performed by Beck Corp. for Leon	325,000

In Leon's 2007 income statement, research and development expense should be

- a. \$510,000.
- b. \$835,000.
- c. \$1,185,000.
- d. \$1,435,000.

87. Riley Co. incurred the following costs during 2007:

Modification to the formulation of a chemical product	\$160,000
Trouble-shooting in connection with breakdowns during commercial production	150,000
Costs of marketing research for new product	200,000
Seasonal or other periodic design changes to existing products	185,000
Laboratory research aimed at discovery of new technology	215,000

In its income statement for the year ended December 31, 2007, Riley should report research and development expense of

- a. \$575,000.
- b. \$725,000.
- c. \$415,000.
- d. \$335,000.

Multiple Choice Answers—CPA Adapted

Item	Ans.	Item	Ans.	Item	Ans.	Item	Ans.	Item	Ans.
78.	a	80.	d	82.	c	84.	c	86.	c
79.	c	81.	d	83.	d	85.	a	87.	a

DERIVATIONS — Computational

No. Answer Derivation

49. d $\$20,000 + \$800 = \$20,800.$
50. d $\$25,000 + \$1,000 = \$26,000.$
51. c $(\$120,000 \div 10) \times 2 \frac{2}{3} = \$32,000.$
52. c $(\$180,000 \div 10) \times 2 \frac{2}{3} = \$48,000.$
53. b $\$180,000 - [(\$180,000 \div 10) \times 1 \frac{1}{3}] = \$156,000.$
 $(\$156,000 + \$44,000) \div 5 = \$40,000.$
54. b $\$450,000 - [(\$450,000 \div 10) \times 1 \frac{1}{3}] = \$390,000.$
 $(\$390,000 + \$110,000) \div 5 = \$100,000.$

DERIVATIONS — Computational (cont.)

No.	Answer	Derivation
55.	c	$\$20,000 + \$390,000 + \$90,000 = \$500,000.$
56.	b	$(\$720,000 \div 10) \times 5 = \$360,000.$
57.	b	$[(\$180,000 - \$18,000) + \$81,000] \div 12 = \$20,250.$
58.	a	$\$500,000 \div 10 = \$50,000.$
59.	c	Wildcat: $\$6,000,000 - \$200,000$ (deferred gain) = $\$5,800,000.$ Aggie: $\$6,000,000 - \$400,000$ (deferred gain) = $\$5,600,000.$
60.	b	$\$1,200,000 - [(\$1,200,000 \div 6) \times 2] = \$800,000.$ $\$800,000 \div 20 = \$40,000.$
61.	c	$(\$5,000,000 + \$300,000) - \$2,000,000 = \$3,300,000$ $\$5,100,000 - \$3,300,000 = \$1,800,000.$
62.	c	$(\$6,000,000 + \$400,000) - \$2,500,000 = \$3,900,000.$ $\$6,100,000 - \$3,900,000 = \$2,200,000.$
63.	d	$\$620,000 + \$60,000 + \$45,000 = \$725,000.$ $\$800,000 - \$725,000 = \$75,000.$
64.	a	Since $\$2,000,000 > \$1,700,000$, \$0 impairment.
65.	b	$\$1,500,000 - \$950,000 = \$550,000$ extraordinary gain.
66.	b	$\$860,000 - \$640,000 = \$220,000.$
67.	c	$\$5,000,000 - [(\$5,000,000 \div 10) \times 2] = \$4,000,000.$
68.	d	$\$10,000,000 - [(\$10,000,000 \div 10) \times 2] = \$8,000,000.$ Since $\$8,000,000 > (\$800,000 \times 8)$, patent is reported at \$4,800,000 (present value of cash flows).
69.	b	$\$1,700,000 - \$1,450,000 = \$250,000$ $\$375,000 - \$250,000 = \$125,000.$
70.	b	$\$3,400,000 - \$2,900,000 = \$500,000$ $\$750,000 - \$500,000 = \$250,000.$
71.	d	Expense total of \$350,000.
72.	c	$\$4,875,000 - \$3,000,000 = \$1,875,000.$
73.	c	$\$180,000 + \$45,000 + \$360,000 = \$585,000.$
74.	a	$(\$600,000 \div 4) + \$350,000 = \$500,000.$

DERIVATIONS — Computational (cont.)

No.	Answer	Derivation
75.	a	$(\$800,000 \div 4) + \$500,000 = \$700,000.$
*76.	c	$(\$1,500,000 - \$500,000) \times (\$1,000,000 \div \$4,000,000) = \$250,000.$ $\$250,000 + (\$500,000 - \$400,000) = \$350,000.$
*77.	c	$(\$3,000,000 - \$1,000,000) \times (\$2,000,000 \div \$8,000,000) = \$500,000.$ $\$500,000 + (\$1,000,000 - \$800,000) = \$700,000.$

DERIVATIONS — CPA Adapted

No.	Answer	Derivation
78.	a	$\$80,000 + \$120,000 = \$200,000.$
79.	c	$\$2,000 \times \$45 = \$90,000.$
80.	d	$\$2,000 \times \$32 = \$64,000.$
81.	d	$\$300,000 \div (20 - 5) = \$20,000.$
82.	c	$\$180,000 - [(\$180,000 \div 10) \times 3] = \$126,000.$
83.	d	$(\$800,000 - [(\$800,000 \div 16) \times 4]) = \$600,000$ $(\$600,000 + \$120,000) \div 12 = \$60,000.$
84.	c	Conceptual.
85.	a	Conceptual.
86.	a	$\$350,000 + \$510,000 + \$325,000 = \$1,185,000.$
87.	a	$\$160,000 + \$200,000 + \$215,000 = \$575,000.$

EXERCISES

Ex. 12-88—Short essay questions.

1. What are intangible assets?
2. How are limited-life intangibles accounted for subsequent to acquisition?

Solution 12-88

1. Intangible assets are assets that derive their value from the rights and privileges granted to the company using them. They provide services over a period of years and are normally classified as long-term assets. Examples are patents, copyrights, franchises, goodwill, trademarks, and trade names.

Solution 12-88 (cont.)

2. Limited-life intangibles are amortized by systematic charges to expense over their useful life. In addition, they are reviewed for impairment each year. Impairment occurs when the future net cash flows are less than the carrying amount of the intangible asset. The intangible asset is reduced for the amount by which its carrying value exceeds its fair value at year end.

Ex. 12-89—Intangible assets questions.

Indicate the *best* answer by circling the proper letter.

1. Copyrights should be amortized over
 - a. their legal life.
 - b. the life of the creator plus fifty years.
 - c. twenty years.
 - d. their useful life or legal life, whichever is shorter.
2. A patent should be amortized over
 - a. twenty years.
 - b. its useful life.
 - c. its useful life or twenty years, whichever is longer.
 - d. its useful life or twenty years, whichever is shorter.
3. The major problem of accounting for intangibles is determining
 - a. fair market value.
 - b. separability.
 - c. salvage value.
 - d. useful life.
4. Limited-life intangibles are reported at their
 - a. replacement cost.
 - b. carrying amount unless impaired.
 - c. acquisition cost.
 - d. liquidation value.
5. Negative goodwill arises when the _____ of the net assets acquired is higher than the purchase price of the assets.
 - a. useful life
 - b. carrying value
 - c. fair market value
 - d. excess earnings

Solution 12-89

1. d 2. d 3. d 4. b 5. c

Ex. 12-90—Intangible assets theory.

It has been argued on the grounds of conservatism that all intangible assets should be written off immediately after acquisition. Discuss the accounting arguments against this treatment.

Solution 12-90

Intangible assets provide revenues over a period of years. Limited-life intangibles are therefore capitalized and amortized by systematic charges to expense over their useful life. This treatment is in accordance with the matching principle—deducting expenses in the same period(s) that revenues are reported.

Ex. 12-91—Carrying value of patent.

Fehr Co. purchased a patent from Wells Co. for \$180,000 on July 1, 2004. Expenditures of \$51,000 for successful litigation in defense of the patent were paid on July 1, 2007. Fehr estimates that the useful life of the patent will be 20 years from the date of acquisition.

Instructions

Prepare a computation of the carrying value of the patent at December 31, 2007.

Solution 12-91

Cost of patent	\$180,000
Amortization 7/1/04 to 7/1/07 [$(\$180,000 \div 20) \times 3$]	<u>(27,000)</u>
Carrying value at 7/1/07	153,000
Cost of successful defense	<u>51,000</u>
Carrying value	204,000
Amortization 7/1/07 to 12/31/07 [$\$204,000 \times 1/(20 - 3) \times 1/2$]	<u>(6,000)</u>
Carrying value at 12/31/07	<u>\$198,000</u>

Ex. 12-92—Accounting for patent.

In early January 2005, Lerner Corporation applied for a patent, incurring legal costs of \$50,000. In January 2006, Lerner incurred \$9,000 of legal fees in a successful defense of its patent.

Instructions

- Compute 2005 amortization, 12/31/05 carrying value, 2006 amortization, and 12/31/06 carrying value if the company amortizes the patent over 10 years.
- Compute the 2007 amortization and the 12/31/07 carrying value, assuming that at the beginning of 2007, based on new market research, Lerner determines that the fair value of the patent is \$44,000. Estimated future cash flows from the patent are \$45,000 on January 3, 2007.

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Solution 12-92

- (a) 2005 amortization: $\$50,000 \div 10 \text{ yrs.} = \underline{\$5,000}$
12/31/05 carrying value: $\$50,000 - \$5,000 = \underline{\$45,000}$
2006 amortization: $(\$45,000 + \$9,000) \div 9 \text{ yrs.} = \underline{\$6,000}$
12/31/06 carrying value: $(\$45,000 + \$9,000) - \$6,000 = \underline{\$48,000}$
- (b) Since the expected future cash flows (\$45,000) are less than the carrying value (\$48,000), an impairment loss must be computed.
Loss on impairment: $\$48,000 \text{ carrying value} - \$44,000 \text{ fair value} = \underline{\$4,000}$
2007 amortization: $\$44,000 \div 8 \text{ yrs.} = \underline{\$5,500}$
12/31/07 carrying value: $\$44,000 - \$5,500 = \underline{\$38,500}$

Ex. 12-93—Impairment of copyrights.

Presented below is information related to copyrights owned by Wamser Corporation at December 31, 2006.

Cost	\$2,700,000
Carrying amount	2,400,000
Expected future net cash flows	2,100,000
Fair value	1,400,000

Assume Wamser will continue to use this asset in the future. As of December 31, 2006, the copyrights have a remaining useful life of 5 years.

Instructions

- (a) Prepare the journal entry (if any) to record the impairment of the asset at December 31, 2006.
(b) Prepare the journal entry to record amortization expense for 2007.
(c) The fair value of the copyright at December 31, 2007 is \$1,500,000. Prepare the journal entry (if any) necessary to record this increase in fair value.

Solution 12-93

(a)	December 31, 2006		
Loss on Impairment		1,000,000	
Copyrights.....			1,000,000
Carrying amount	\$2,400,000		
Fair value	<u>1,400,000</u>		
Loss on impairment	<u>\$1,000,000</u>		

(b)	December 31, 2007		
Amortization Expense		280,000	
Copyrights.....			280,000
New carrying amount	\$1,400,000		
Useful life	<u>÷ 5 years</u>		
Amortization	<u>\$ 280,000</u>		

- (c) No entry necessary. Restoration of any impairment loss is not permitted for assets held for future use.

Ex. 12-94—Acquisition of tangible and intangible assets.

Fowler Manufacturing Company decided to expand further by purchasing Abel Company. The balance sheet of Abel Company as of December 31, 2007 was as follows:

Abel Company
Balance Sheet
December 31, 2007

<u>Assets</u>		<u>Equities</u>	
Cash	\$ 210,000	Accounts payable	\$ 325,000
Receivables	450,000	Common stock	800,000
Inventory	275,000	Retained earnings	<u>835,000</u>
Plant assets (net)	<u>1,025,000</u>		
Total assets	<u>\$1,960,000</u>	Total equities	<u>\$1,960,000</u>

An appraisal, agreed to by the parties, indicated that the fair market value of the inventory was \$350,000 and that the fair market value of the plant assets was \$1,225,000. The fair market value of the receivables is equal to the amount reported on the balance sheet. The agreed purchase price was \$2,100,000, and this amount was paid in cash to the previous owners of Abel Company.

Instructions

Determine the amount of goodwill (if any) implied in the purchase price of \$2,100,000. Show calculations.

Solution 12-94

Purchase price		\$2,100,000
Less tangible net assets acquired:		
Book value	\$1,635,000	
Appraisal increment—inventory	75,000	
Appraisal increment—plant assets	<u>200,000</u>	
Total fair market value of tangible net assets acquired		<u>1,910,000</u>
Goodwill		<u>\$ 190,000</u>

PROBLEMS

Pr. 12-95—Intangible assets.

The following transactions involving intangible assets of Minton Corporation occurred on or near December 31, 2006. Complete the chart below by writing the journal entry(ies) needed at that date to record the transaction and at December 31, 2007 to record any resultant amortization. If no entry is required at a particular date, write "none needed."

	<u>On Date of Transaction</u>	<u>On December 31, 2007</u>
1. Minton paid Grand Company \$250,000 for the exclusive right to market a particular product, using the Grand name and logo in promotional material. The franchise runs for as long as Minton is in business.		
2. Minton spent \$300,000 developing a new manufacturing process. It has applied for a patent, and it believes that its application will be successful.		
3. In January, 2007, Minton's application for a patent (#2 above) was granted. Legal and registration costs incurred were \$60,000. The patent runs for 20 years. The manufacturing process will be useful to Minton for 10 years.		
4. Minton incurred \$96,000 in successfully defending one of its patents in an infringement suit. The patent expires during December, 2010.		
5. Minton incurred \$240,000 in an unsuccessful patent defense. As a result of the adverse verdict, the patent, with a remaining unamortized cost of \$126,000, is deemed worthless.		
6. Minton paid Sneed Laboratories \$52,000 for research and development work performed by Sneed under contract for Minton. The benefits are expected to last six years.		

Solution 12-95

	<u>On Date of Transaction</u>	<u>On December 31, 2007</u>
1. Franchise.....	250,000	1. "None needed."
Cash		250,000
2. Research and		2. "None needed."
Devel. Expense ...	300,000	
Cash		300,000

Solution 12-95 (cont.)

3. Patents.....	60,000		3. Patent Amortization Expense.....	6,000	
Cash.....		60,000	Patents.....		6,000
4. Patents.....	96,000		4. Patent Amortization Expense.....	24,000	
Cash.....		96,000	Patents.....		24,000
5. Legal Fees Exp. ...	240,000		5. "None needed."		
Cash.....		240,000			
Patent Expense...	126,000				
Patents		126,000			
6. Research and Devel. Expense...	52,000		6. "None needed."		
Cash.....		52,000			

Pr. 12-96—Goodwill, impairment.

On May 31, 2007, Porter Company paid \$3,200,000 to acquire all of the common stock of Eaton Corporation, which became a division of Porter. Eaton reported the following balance sheet at the time of the acquisition:

Current assets	\$ 800,000	Current liabilities	\$ 600,000
Noncurrent assets	<u>2,700,000</u>	Long-term liabilities	500,000
		Stockholders' equity	<u>2,400,000</u>
		Total liabilities and stockholders' equity	<u>\$3,500,000</u>
Total assets	<u>\$3,500,000</u>		

It was determined at the date of the purchase that the fair value of the identifiable net assets of Eaton was \$2,700,000. At December 31, 2007, Eaton reports the following balance sheet information:

Current assets	\$ 600,000
Noncurrent assets (including goodwill recognized in purchase)	2,400,000
Current liabilities	(700,000)
Long-term liabilities	<u>(500,000)</u>
Net assets	<u>\$1,800,000</u>

It is determined that the fair market value of the Eaton division is \$1,900,000. The recorded amount for Eaton's net assets (excluding goodwill) is the same as fair value, except for property, plant, and equipment, which has a fair value of \$200,000 above the carrying value.

Instructions

- Compute the amount of goodwill recognized, if any, on May 31, 2007.
- Determine the impairment loss, if any, to be recorded on December 31, 2007.
- Assume that the fair value of the Eaton division is \$1,700,000 instead of \$1,900,000. Prepare the journal entry to record the impairment loss, if any, on December 31, 2007.

Solution 12-96

- (a) Goodwill = Fair value of the division less the fair value of the identifiable assets.
 $\$3,200,000 - \$2,700,000 = \$500,000$.
- (b) No impairment loss is recorded, because the fair value of Eaton (\$1,900,000) is greater than the carrying value (\$1,800,000) of the new assets.
- (c) Computation of impairment loss:

Implied fair value of goodwill = Fair value of division less the carrying value of the division (adjusted for fair value changes), net of goodwill:

Fair value of Eaton division		\$1,700,000
Carrying value of division	\$1,800,000	
Increase in fair value of PP&E	200,000	
Less goodwill	<u>(500,000)</u>	
		<u>(1,500,000)</u>
Implied value of goodwill		200,000
Carrying amount of goodwill		<u>(500,000)</u>
Loss on impairment		<u>\$ (300,000)</u>
Loss on Impairment	300,000	
Goodwill		300,000