

CHAPTER 12

GOODWILL AND OTHER INTANGIBLE ASSETS

ASSIGNMENT CLASSIFICATION TABLE

Description	Brief Exercise	Exercise	Problem	Writing Assignment
1. Importance of intangible assets	1			
2. Characteristics of intangible assets	2, 3		1, 2, 3	
3. Recognition, measurement of purchased intangibles	2, 3, 4, 5, 6, 7, 8, 10, 14	1, 2, 3, 5, 6, 7	4	1,5
4. Recognition, measurement of internally developed intangibles	2, 3, 6, 7, 8, 9, 11, 12	4, 5, 6, 7, 8, 9, 10, 11	1, 5	2,3,5
5. Subsequent accounting for intangibles	9, 12, 13, 14, 15	4, 5, 6, 7, 8, 9, 10, 11, 12	2, 4, 5, 6, 7, 9	3,5
6. Accounting for specific types of intangibles	10	1, 2, 3, 6, 7, 9, 10	3, 7, 8	
7. Impairment of limited-life and unlimited life intangibles	16, 17, 18	11, 13, 14, 15, 16, 17, 18	7, 8, 9	
8. Accounting for goodwill	19, 20, 21	2, 3, 19, 20, 21	3, 4, 10, 11, 12, 13	1,4,5
9. Disclosure			1, 3, 5	
10. ASPE v. IFRS	13, 15, 16, 17, 20, 21	1, 10, 11, 13, 14, 15, 16, 17, 18, 20, 21	2, 3, 8, 10, 11	3,6
11.* Basic approaches to valuing goodwill	22	22, 23, 24, 25, 26	12, 13	1,4

*This material is covered in an Appendix to the chapter.

ASSIGNMENT CHARACTERISTICS TABLE

Item	Description	Level of Difficulty	Time (minutes)
E12-1	Classification issues—intangibles.	Moderate	15-20
E12-2	Classification issues—intangibles.	Simple	10-15
E12-3	Classification issues—intangible asset.	Moderate	10-15
E12-4	Limited-life intangible amortization.	Moderate	15-20
E12-5	Correct intangible asset account.	Moderate	15-20
E12-6	Recognition and amortization of intangibles.	Simple	15-20
E12-7	Accounting for trade name.	Moderate	25-30
E12-8	Accounting for internally generated	Simple	10-15
E12-9	Accounting for internally generated	Moderate	25-30
E12-10	Accounting for patents, franchises, and R&D.	Moderate	15-20
E12-11	Accounting for internally generated	Moderate	25-30
E12-12	Revaluation model	Moderate	20-25
E12-13	Intangible impairment.	Simple	20-25
E12-14	Intangible impairment.	Simple	10-15
E12-15	Intangible impairment.	Simple	20-25
E12-16	Intangible impairment.	Simple	10-15
E12-17	Accounting for intangibles/impairment	Moderate	15-20
E12-18	Impairment	Simple	15-20
E12-19	Accounting for goodwill	Moderate	15-20
E12-20	Accounting for goodwill	Simple	15-20
E12-21	Accounting for goodwill	Moderate	15-20
*E12-22	Calculate normal earnings.	Simple	10-15
*E12-23	Calculate goodwill.	Moderate	20-25
*E12-24	Calculate goodwill.	Moderate	15-20
*E12-25	Calculate goodwill.	Simple	10-15
*E12-26	Calculate fair value of identifiable assets	Moderate	15-20
P12-1	Accounting for intangible-type expenditures.	Moderate	25-35
P12-2	Accounting for franchise, patents, and trademark.	Moderate	20-30
P12-3	Comprehensive problems on intangibles.	Complex	50-70
P12-4	Correct intangible asset account.	Moderate	20-25
P12-5	Accounting for R&D costs and patent.	Moderate	20-25
P12-6	Revaluation model.	Moderate	30-40
P12-7	Comprehensive intangible and impairment.	Moderate	30-40
P12-8	Comprehensive intangible and impairment - IFRS.	Moderate	15-20
P12-9	Determine useful life of intangibles.	Moderate	25-30
P12-10	Calculation of goodwill and impairment.	Moderate	20-25

ASSIGNMENT CHARACTERISTICS TABLE (Continued)

Item	Description	Level of Difficulty	Time (minutes)
P12-11	Comprehensive goodwill impairment - IFRS.	Moderate	15-20
*P12-12	Calculate goodwill and company value.	Moderate	20-25
*P12-13	Valuing goodwill.	Moderate	25-30

SOLUTION TO BRIEF EXERCISES

BRIEF EXERCISE 12-1

a) Intangible assets likely include:

- 1. Purchased trademark “Healthy Originals” and its related internet domain name**
- 2. Purchased patented cookie recipes**
- 3. Expenditures related to infrastructure and graphical design development of company website.**

b) All of the company’s most important assets are intangible assets, including the “Healthy Originals” trademark, the patented cookie recipes, and the company’s website. The intangible assets help to protect the revenues of the business by allowing the company to sell a unique product (cookies produced from a patented recipe), under a unique brand name (“Healthy Originals”), and through a unique website (www.healthyoriginals.com).

c) The intangible assets meet the definition of an asset because they involve present economic resources, and the company has control over their future benefits and can restrict others’ access. Recording of intangible assets on the company’s balance sheet provides users with relevant and faithfully representative information about the company’s expected future economic benefits, as well as financial statements that are free from error or bias.

BRIEF EXERCISE 12-2

- a) **This should not be an intangible asset because while the software lacks physical substance and is non-monetary, it cannot be identifiable as a separate component from the manufacturing machine. Generally, if the software is needed for the physical component to operate, it is treated as an item of property, plant and equipment.**
- b) **This software fulfills the three criteria because it is identifiable and separable from the related computer hardware, it lacks physical substance, and is non-monetary.**
- c) **Expenditures on this software would be subject to the criteria for internally developed intangible assets. All expenditures incurred during the research phase would be expensed. Only expenditures incurred after the six required conditions are met in the development phase can be recognized as an intangible asset – software product development costs. These costs would meet the three criteria for intangible assets as opposed to property, plant and equipment since they lack physical substance, are non-monetary and are identifiable. When the software product enters the production process, the development costs that met the capitalization criteria are amortized into Inventory, most likely over the number of units produced.**
- d) **This item represents inventory, not an intangible asset. Remember, as discussed in Chapter 8, items purchased for resale to customers are inventory. Intangible assets are not held for sale, but rather are used by the business to facilitate its operations.**

BRIEF EXERCISE 12-3

- (a) Expense as salaries and wages expense**
- (b) Capitalize if the development phase criteria for capitalization are all met; else expense**
- (c) Expense as advertising expense**
- (d) Expense as selling expenses**
- (e) Expense as research and development expense**
- (f) If reporting under ASPE, depending on the company's accounting policy, expense or capitalize when the six development stage criteria for capitalization are met. If reporting under IFRS, capitalize when the six development stage criteria for capitalization are met.**

BRIEF EXERCISE 12-4

Copyright No. 1 for \$18,000 should be capitalized. Its carrying value on the December 31, 2014 balance sheet would be \$16,000 [$\$18,000 - (\$18,000 \times 1/3 \times 4/12)$].

Copyright No. 2 for \$29,400 should be capitalized. Since it has an indefinite useful life it would not be amortized. It would be reflected on the December 31, 2014 balance sheet at its cost of \$29,400.

BRIEF EXERCISE 12-5

Intangible Assets – Trademarks (\$44,000	158,610	
X 3.60478).....		
Notes Payable (*).....		158,610

Using a financial calculator (assuming payments are made at the end of each year):

PV	?	Yields \$158,610
I	12%	
N	5	
PMT	\$(44,000)	
FV	-	
Type	0	

Excel formula: =PV(rate,nper,pmt,fv,type)

(*) the note payable is presented net of the discount of \$61,390

BRIEF EXERCISE 12-6

	<u>Carrying Amount</u>	<u>Life in Months</u>	<u>Amort. Per Month</u>	<u>Months Amort.</u>
Patent (1/1/14)	\$365,000	96	\$3,802	12
Legal cost (12/1/14)	<u>106,000</u>	85	\$1,247	1
	<u>\$471,000</u>			

Carrying amount	\$471,000
Less: Amortization Patent (12 X \$3,802)	(45,624)
Legal costs (1 X \$1,247)	<u>(1,247)</u>
Carrying amount 12/31/14	<u>\$424,129</u>

The accounting for the research expense of \$140,000 is very clear in that no costs incurred on research or in the research phase of an internal project meet the criteria for recognition as an asset.

An intangible asset can only be recognized from the development phase of an internal project when the six criteria for capitalization are met.

Therefore, the research costs of \$140,000 must be expensed in the period, because they were incurred before the required criteria for capitalization were fulfilled.

BRIEF EXERCISE 12-7

Intangible Assets - Software (New)	7,620*	
Loss on Disposal of Intangible Assets	1,100	
Cash		7,620
Intangible Assets - Software (Old)		1,100
* \$5,900 + \$1,720 = \$7,620		

Specifically excluded as capitalized costs are selling, administrative, and other general overhead costs that cannot be directly linked to preparing the asset for use, and costs incurred to train employees. These would be expensed as period costs.

BRIEF EXERCISE 12-8

- (a) Capitalized.**
- (b) Expensed.**
- (c) Expensed.**
- (d) Expensed.**
- (e) Capitalized.**
- (f) Expensed.**
- (g) Expensed.**
- (h) Expensed.**

BRIEF EXERCISE 12-9

As a private company applying ASPE, Swinson has the option to either recognize all costs of internally generated intangible assets as an expense or to recognize the costs as an internally generated intangible asset when the six development phase criteria for capitalization are met.

If Swinson chooses to expense, all costs incurred will be expensed as research and development activities.

Research and Development Expense	161,000	
Cash		161,000
(\$45,000 + \$15,000 + \$2,000* + \$72,000 + \$15,000 + \$12,000)		

If Swinson chooses to capitalize, all costs incurred after March, 2014 will be capitalized. The costs incurred prior to the date the required criteria were met must be expensed as research and development expense.

Intangible Assets - Development Costs	134,000	
Research and Development Expense		
(\$15,000 + \$12,000)	27,000	
Cash		161,000
(\$45,000 + \$15,000 + \$2,000*+ \$72,000) = \$134,000		

***Under ASPE, interest costs directly attributable to the acquisition, construction or development of an intangible asset, once it meets the criteria to be capitalized, may be capitalized or expensed depending on the company's accounting policy for borrowing costs.**

BRIEF EXERCISE 12-9 (Continued)

If Swinson was a public company following IFRS, all costs associated with the development of internally generated intangible assets would be capitalized when the six development phase criteria for capitalization are met. The costs incurred prior to the date the required criteria were met would be expensed as research and development expense.

Intangible Assets - Development Costs	134,000	
Research and Development Expense		
(\$15,000 + \$12,000)	27,000	
Cash		161,000
(\$45,000 + \$15,000 + \$2,000 + \$72,000) = \$134,000		

BRIEF EXERCISE 12-10

The asset purchase would be capitalized using the relative fair value method. The assets should be separated so that the amortization expense can be determined based on each asset's useful life.

	Fair Value	% of Total	X Cost	=	Recorded Amount (rounded)
Trade Name	\$280,000	28/89	\$800,000		\$251,685
Customer List	290,000	29/89	800,000		260,674
Manuf. Equip.	<u>320,000</u>	32/89	800,000		<u>287,641</u>
	<u>\$890,000</u>				<u>\$800,000</u>

Intangible Assets - Trade Names	251,685
Intangible Assets - Customer Lists.....	260,674
Equipment.....	287,641
Cash.....	800,000

Specifically excluded are initial operating losses after the assets have been put into use.

BRIEF EXERCISE 12-11

Specifically excluded as capitalized costs are selling, administrative, and other general overhead costs that cannot be directly linked to preparing the asset for use, and costs incurred to train employees. Costs incurred to promote or launch products must also be expensed as period costs.

BRIEF EXERCISE 12-12

Amortization Expense = \$980,000 X (380,000 / (1,560,000 + 380,000)) = \$191,959.

An “activity” approach proportional method may be used to reflect the pattern in which the software benefits were delivered. The rate is determined using the pattern of revenues from the use of the software.

BRIEF EXERCISE 12-13

Intangible Assets - Patents.....	87,000	
 Cash.....		87,000
Amortization Expense.....	5,438	
 Accumulated Amortization - Patents		5,438
 (\$87,000 X 1/16 = \$5,438 (rounded))		

BRIEF EXERCISE 12-14

Intangible Assets - Patents.....	26,000	
 Cash.....		26,000
Amortization Expense.....	14,589	
 Accumulated Amortization - Patents		14,589
 [(\$87000 – \$5,438 – \$5,438 + \$26,000) X 1/7 = \$14,589]		

BRIEF EXERCISE 12-15

- (a) It is probable that the entity will receive the expected future economic benefits, and the cost of the licences can be measured reliably, therefore the recognition criteria for intangible assets are met and the licences are capitalized:

December 31, 2014

Intangible Assets – Licences	10,000	
 Cash.....		10,000
10 X \$1,000 = \$10,000		

- (b) If Convenient Cabs follows ASPE, the licences are accounted for under the Cost Model, which measures the licences after acquisition at their cost less accumulated amortization and any accumulated impairment losses.
- (c) Under IFRS, intangible assets are accounted for under the Cost Model or the Revaluation Model; however, the Revaluation Model can only be applied to intangible assets that have a fair value determined in an active market. There is an active market for taxi licences in Somerdale, therefore Convenient Cabs may account for the licences either under the Cost Model or the Revaluation Model. The Cost Model would measure the licences after acquisition at their cost less accumulated amortization and any accumulated impairment losses. The Revaluation Model would measure the licences after acquisition at their fair value at the date of revaluation less any subsequent accumulated amortization and any subsequent impairment losses.

BRIEF EXERCISE 12-16

Under ASPE, the cost recovery impairment model for limited-life intangible assets would apply in this case. The undiscounted future cash flows are first compared to the carrying amount. If undiscounted future cash flows < carrying amount, the asset is impaired, and the impairment loss is calculated as the difference between the asset's carrying amount and fair value.

Undiscounted future cash flows (\$125,000) > Carrying amount (\$83,750), therefore the asset is not considered to be impaired.

BRIEF EXERCISE 12-17

Under IFRS, the rational entity impairment model would apply. If carrying amount > recoverable amount (where recoverable amount is the higher of value in use and fair value less costs to sell), the impairment loss is calculated as the difference between carrying amount and recoverable amount.

In this case, the recoverable amount is \$95,200 (because value in use is higher than the fair value less costs to sell), and there is no impairment loss as the carrying amount of \$83,750 does not exceed the recoverable amount of \$95,200.

BRIEF EXERCISE 12-18

- a) Under ASPE, for indefinite-life intangible assets, the impairment test is a comparison of carrying amount with the asset's fair value, where impairment loss is equal to the difference when fair value is lower. Carrying amount (\$83,750) > fair value (\$45,000), therefore the trademark is impaired and impairment loss is calculated as \$38,750 (\$83,750 - \$45,000).
- b) Under IFRS, the rational entity impairment model applies. There is no impairment loss as the carrying amount of \$83,750 does not exceed the recoverable amount of \$95,200 (where recoverable amount is the higher of value in use and fair value less costs to sell).

BRIEF EXERCISE 12-19

Fair value of consideration transferred		\$863,000
Fair value of assets	\$1,160,000	
Less fair value of liabilities	<u>(460,000)</u>	
Fair value of net assets		<u>700,000</u>
Value assigned to goodwill		<u>\$163,000</u>

BRIEF EXERCISE 12-20

Under IFRS, the recoverable amount of the CGU is compared with its carrying amount to determine if there is any impairment.

Based on the information provided, the recoverable amount of the CGU is the greater of:

- Fair value less costs to sell = \$3,450,000
- Value in use = \$3,850,000

Recoverable amount of CGU	\$3,850,000
Carrying amount of CGU	\$3,925,000

The goodwill is impaired because carrying amount of the CGU > recoverable amount of the CGU. The goodwill impairment loss is \$75,000 (\$3,925,000 - \$3,850,000).

BRIEF EXERCISE 12-21

Under ASPE, goodwill is assigned to a reporting unit at the acquisition date. Goodwill is tested for impairment when events or changes in circumstances indicate impairment may exist.

There is an impairment loss if the carrying amount of the reporting unit (including goodwill) exceeds the fair value of the reporting unit.

Carrying amount of unit	\$3,613,000
Fair value of unit	<u>\$3,550,000</u>
Impairment loss	<u>\$63,000</u>

A reversal of an impairment loss on goodwill is not permitted.

***BRIEF EXERCISE 12-22**

Average earnings [(\$750,000 – \$94,000) X 1/5]	\$131,200
Normal earnings (\$690,000 X 15%)	<u>(103,500)</u>
Excess earnings	27,700
Capitalization rate	÷ 20%
Estimated goodwill	<u>\$138,500</u>

SOLUTIONS TO EXERCISES

EXERCISE 12-1 (15-20 minutes)

- (a) 3, 10, 15, 16, 17, 19, 20*, 23, 25**, 26*****
- (b)**
- 1. Long-term investments on the statement of financial position.**
 - 2. Biological asset on the statement of financial position.**
 - 4. Current asset (prepaid rent) on the statement of financial position.**
 - 5. Property, plant, and equipment on the statement of financial position.**
 - 6. Research and development expense on the income statement.**
 - 7. Expensed on the income statement**
 - 8. Operating losses on the income statement.**
 - 9. Expensed on the income statement**
 - 11. Not recorded; any costs incurred related to creating goodwill internally must be expensed.**
 - 12.* Research and development expense on the income statement.**
 - 13. Goodwill should be shown as a separate line item on the statement of financial position.**
 - 14. Research and development expense on the income statement.**
 - 18. Research and development expense on the income statement.**
 - 21. Long-term investments, or other assets, on the statement of financial position.**
 - 22. Expensed on the income statement.**
 - 24. Expensed on the income statement.**

EXERCISE 12-1 (Continued)

*** Capitalized as development costs only if they meet all six development phase criteria for capitalization. See further discussion under part (c)**

**** Intangible asset to the extent a lump sum was paid in advance to secure the contract since it is identifiable, separable (as based on a contractual period), lacks physical substance and is non-monetary. The intangible asset is then amortized as the services are provided. Note that if monies were paid under the contract over the contract period, they would be recognized as normal advertising and promotion costs which are expensed as period costs.**

*****Treatment of borrowing costs differs between IFRS and ASPE. See further discussion under part (c)**

(c) There are differences with respect to capitalization of borrowing costs and capitalization of research and development costs:

- Under IFRS, borrowing costs that are directly attributable to the acquisition, construction or development of qualifying intangible assets are capitalized, once the six development phase criteria are met. Under ASPE, interest costs directly attributable to the acquisition, construction or development of an intangible asset may be capitalized or expensed depending on the entity's accounting policy, once the six development phase capitalization criteria are met.**
- Under ASPE, costs associated with development of internally generated intangible assets that meet the six criteria in the development stage, may be capitalized or expensed, depending on the entity's accounting policy. There is no accounting policy choice under IFRS (under IFRS, costs associated with the development of internally generated intangible assets are capitalized when the six criteria in the development stage are met).**

EXERCISE 12-2 (10-15 minutes)

The following items would be classified as intangible assets:

Cable Television Franchises

Film Contract Rights

Music Copyrights

Customer Lists acquired in a business combination

Goodwill *

Covenants Not To Compete

Brand Names

In-Process R&D acquired in a business combination**

An intangible for customer lists usually results from a company purchasing a list from another party.

A covenant not to compete may arise when a company pays another company a fee to ensure that the company does not compete in a given area.

Other items:

Cash, accounts receivable, notes receivable due within one year from balance sheet date, and prepaid expenses would be classified as current assets.

Property, plant, and equipment, and land would be classified as non-current assets in the tangible property, plant, and equipment section.

Leasehold improvements are generally shown in the tangible property, plant, and equipment section, although some accountants classify them as intangible assets. The rationale for intangible asset treatment is that the improvements revert to the lessor at the end of the lease and therefore are more of a right than a tangible asset.

Investments in affiliated companies would be classified as part of the investments section on the balance sheet.

EXERCISE 12-2 (Continued)

Research costs, organization cost, and the annual franchise fee would be classified as operating expenses.

Discount on notes payable is shown as a deduction from the related notes payable on the balance sheet.

***The excess of purchase price over fair value of identifiable net assets of X Corp. is the amount assigned to goodwill in a business combination.**

****In-process R&D is recognized as an intangible asset when it is acquired as part of a business combination.**

EXERCISE 12-3 (10-15 minutes)

- | | | |
|------------|-------------------------------------|------------------------|
| (a) | Development phase activities | 29,000 |
| | Trademarks | 17,500 |
| | Total intangible assets | <u>\$46,500</u> |
- (b) Excess of cost over fair value of net assets of acquired subsidiary – Goodwill, \$81,000, should be shown as a separate line item on the balance sheet.**

Discount on bonds payable, \$23,000, should be reported net with the bonds payable in the long-term liabilities section.

Deposits with advertising agency for ads to promote goodwill of company, \$8,000, should be reported either as an expense or as prepaid advertising in the current assets section. Advertising costs in general are expensed when incurred or when first used.

Cost of equipment acquired for research and development projects, \$125,000, should be reported with property, plant, and equipment. Even if it was to be used only with a specific project, because it would be used over a number of periods, it would be capitalized and depreciated as a research and development expense over the period of use.

Costs of researching a secret formula for a product that is expected to be marketed for at least 20 years (\$75,000) should be expensed as part of Research and Development Expense. Development expenses are expensed unless all six criteria for capitalization are met.

The payment for a favourable lease is a long-term prepayment and should be shown in the non-current assets section.

Organization costs of \$34,000 are a period cost and expensed in the income statement.

EXERCISE 12-4 (15-20 minutes)

- (a) At December 31, 2014, Mount Olympus should report the patent at \$1,080,000 (\$1,800,000 net of \$720,000 accumulated amortization) on the balance sheet. The calculation of accumulated amortization is as follows.

Amortization for 2012 and 2013:	
(\$1,800,000/10) X 2	\$360,000
2014 amortization:	
(\$1,800,000 – \$360,000) ÷ (6–2)	<u>360,000</u>
Accumulated amortization, 12/31/14	<u>\$720,000</u>

- (b) Mount Olympus should amortize the franchise over 25 years, the period of identifiable cash flows. Even though the franchise is perpetual the company believes it will generate future economic benefits for only 25 years. The amount of amortization of the franchise for the year ended December 31, 2014, is \$26,000: (\$650,000/25).
- (c) Unamortized development costs would be reported as \$150,000 (\$375,000 net of \$225,000 accumulated amortization) at December 31, 2014.

Amortization for 2012, 2013, and 2014:	
(\$375,000/5) X 3	\$225,000

EXERCISE 12-5 (15-20 minutes)

Research and Development Expense	1,050,000	
Intangible Assets - Development Costs .	215,000	
Intangible Assets - Patents.....	45,000	
Rent Expense [(5 ÷ 7) X \$49,000].....	35,000	
Prepaid Rent [(2 ÷ 7) X \$49,000]	14,000	
Advertising Expense.....	157,000	
Income Summary	316,000	
Discount on Bonds Payable	13,125*	
Interest Expense	875	
 Common Shares.....		310,000
 Intangible Assets		1,536,000

*** Assuming straight-line amortization:**

$$(\$14,000 \div 48 \text{ months}) \times 3 = \$875; \$14,000 - \$875 = \$13,125$$

Amortization Expense.....	2,250	
 Accumulated Amortization - Patents		2,250
[(\\$45,000 ÷ 10) X 1/2]		

EXERCISE 12-6 (15-20 minutes)

a) Journal entry to classify into proper accounts

Intangible Assets - Patents.....	320,000	
Goodwill.....	310,000	
Intangible Assets - Franchises.....	250,000	
Research and Development Expense.....	260,000*	
Intangible Assets – Copyrights.....	140,000	
Advertising Expense.....	33,000	
Intangible Assets - Trademarks.....	15,000	
Intangible Assets - Customer Lists.....	10,000	
Intangible Assets.....		1,338,000

* $\$239,000 + \$21,000 = \$260,000$

b) Year-end amortization

Amortization Expense.....	68,333	
Accumulated Amortization –		
Intangible Assets - Patents.....		40,000
Accumulated Amortization –		
Intangible Assets - Franchises.....		12,500
Accumulated Amortization –		
Intangible Assets - Copyrights.....		11,667
Accumulated Amortization –		
Intangible Assets - Trademarks.....		2,083
Accumulated Amortization –		
Intangible Assets - Customer Lists ..		2,083

Amortization Expense:

Patents: $\$320,000/8 = \$40,000$
Franchise: $\$250,000/10 \times 6/12 = \$12,500$
Copyright: $\$140,000/5 \times 5/12 = \$11,667$
Trademarks: $\$15,000/3 \times 5/12 = \$2,083$
Customer lists: $\$10,000/2 \times 5/12 = \$2,083$

EXERCISE 12-6 (15-20 minutes)

c) Carrying amounts of intangible assets as of December 31, 2014:

Patents =	\$320,000 – \$40,000	= \$280,000
Franchises =	\$250,000 – \$12,500	= \$237,500
Copyrights =	\$140,000 – \$11,667	= \$128,333
Trademarks =	\$15,000 – \$2,083	= \$12,917
Customer Lists =	\$10,000 – \$2,083	= \$7,917

Goodwill of \$310,000 would be shown as a separate line item on the statement of financial position.

EXERCISE 12-7 (25-30 minutes)

- (a) **Variables to consider in determining the appropriate amortization period for a limited-life intangible include:**
- **The legal life of the trade name (15 years in Canada) - the registration is renewable which could extend the legal life indefinitely;**
 - **The expected use of the trade name by the company;**
 - **The effects of demand, competition and other economic factors;**
 - **The period over which its benefits are expected to be provided.**
- (b) **2014 amortization: $\$45,000 \div 15 = \underline{\$3,000}$.**
12/31/14 carrying amount: $\$45,000 - \$3,000 = \underline{\$42,000}$.
- 2015 amortization: $(\$42,000 + \$24,300) \div 14 = \underline{\$4,736}$.**
12/31/15 carrying amount: $\$42,000 + \$24,300 - \$4,736 = \underline{\$61,564}$.
- (c) **2014 amortization: $\$45,000 \div 5 = \underline{\$9,000}$.**
12/31/14 carrying amount: $\$45,000 - \$9,000 = \underline{\$36,000}$.
- 2015 amortization: $(\$36,000 + \$24,300) \div 4 = \underline{\$15,075}$.**
12/31/15 carrying amount: $\$36,000 + \$24,300 - \$15,075 = \underline{\$45,225}$.
- (d) **If indefinite life:**
- **Do not amortize if determined to have an indefinite life.**
 - **Indefinite does not mean infinite life. If classified as indefinite life, management should review to ensure that conditions and circumstances continue to support the indefinite life assessment. This assessment is required on an annual basis. If there is a change in the useful life assessed, it will be accounted for prospectively as a change in estimate.**

EXERCISE 12-7 (Continued)

- (e) A longer estimate of useful life (as was assumed in part (b)) results in lower amortization expense on the income statement and higher carrying amount on the balance sheet each period, compared to a shorter estimate of useful life (as was assumed in part (c)). If the trade name is estimated to have an indefinite life, no expense is recorded each period and the carrying amount of the trade name will be equal to original cost, unless the trade name is determined to be impaired.**

The estimated useful life of the trade name should be based on neutral and unbiased consideration of the factors discussed in part (a). A potential investor in Kara should be aware that the estimate of useful life requires a degree of professional judgement, and that the determination of useful life can have a material effect on the balance sheet as well as the income statement.

EXERCISE 12-8 (10-15 minutes)**(a)**

Depreciation of equipment acquired for use in research and development projects over the next 5 years ($\\$240,000 \div 5$)	\$ 48,000
Materials consumed in research projects	61,000
Consulting fees paid to outsiders for research and development projects ($\\$95,000 - \\$4,500$)	90,500
Personnel costs of persons involved in research and development projects	108,000
Indirect costs reasonably allocable to research and development projects	<u>25,000</u>
Total to be expensed in 2014 for Research and Development	<u>\$332,500</u>

Note that the cost of the materials consumed in the development of a product committed for manufacturing in the first quarter of 2015 and the consulting fees related to the materials are likely costs incurred after the six development phase criteria have been met. As such, they would be charged to an intangible asset account such as Product Development Costs that would be amortized over the periods benefitting.

(b) Treatment of training costs and borrowing costs incurred after the six development phase criteria are met:

- Training costs relate to selling activities and should not be categorized as research and development activities. If these costs were incurred after the six development phase criteria for capitalization were met, they would not be capitalized because they are not direct costs of creating, producing and preparing the asset to operate in the way intended by management.
- Under IFRS, borrowing costs that are directly attributable to the acquisition, construction or development of a qualifying intangible asset are capitalized once the required capitalization criteria are fulfilled.

EXERCISE 12-8 (Continued)

- **Under ASPE, interest costs directly attributable to the acquisition, construction or development of an intangible asset may be capitalized or expensed depending on the entity's accounting policy for internally generated assets and the entity's policy on capitalization of interest costs.**

EXERCISE 12-9 (25-30 minutes)

(a) **Fiscal 2014:** The \$392,000 is a research and development cost that should be charged to R & D Expense and, if not separately disclosed on the income statement, total R & D Expense should be separately disclosed in the notes to the financial statements. These costs are not eligible for capitalization since the six development phase criteria for capitalization are not met.

(b) **Fiscal 2015:**

Research and Development Expense.....	71,000	
Cash, Accts. Payable, etc.....		71,000
(To record research and development expense)		
Assuming the criteria are not fulfilled for the development phase		
Intangible Assets - Patents	10,000	
Cash, Accts. Payable, etc.....		10,000
(To record legal and admin. costs incurred to obtain patent)		
Amortization Expense	2,000	
Accumulated Amortization – Intangible Assets - Patents		2,000
[To record one year's amortization expense ($\$10,000 \div 5 = \$2,000$)]		

EXERCISE 12-9 (Continued)**(c) Fiscal 2016:**

Intangible Assets - Patents	12,400	
Cash, Accts. Payable, etc.....		12,400
(To record legal cost of successfully defending patent)		
Amortization Expense	2,550	
Accumulated Amortization – Intangible Assets - Patents.....		2,550
To record one year’s amortization expense:		
\$10,000 – \$2,000 = \$8,000;		
\$8,000 ÷ 8 =	\$1,000	
\$12,400 ÷ 8 =	<u>1,550</u>	
Amortization expense for 2016		<u>\$2,550</u>

The cost of defending the patent is capitalized because the defence was successful and because it extended the useful life of the patent.

(d) Pre Sept 2016:

Under IFRS, costs associated with the development of internally generated intangible assets are capitalized when the six specific criteria for capitalization are met in the development stage. As such, costs incurred before the future benefits are reasonably certain (i.e. before the six specific criteria for capitalization are met) must be expensed. The \$101,000 must be expensed as it was incurred before the future benefits were reasonably certain (i.e. these expenditures helped to establish the existence of future benefits).

Research and Development Expense	101,000	
Cash, Accts. Payable, etc.....		101,000
(To record research and development phase costs)		

EXERCISE 12-9 (Continued)

Post Sept 2016:

Costs incurred after the six specific criteria for capitalization are met, are capitalized. Therefore, assuming after incurring the \$101,000 costs by early September that the company's intention and ability to generate future economic benefits could also be demonstrated, the \$66,000 would be capitalized as development costs.

Intangible Assets - Development Costs	66,000	
Cash, Accts. Payable, etc.		66,000
(To record costs meeting the capitalization criteria – to be amortized over periods benefitting after manufacturing begins)		

EXERCISE 12-10 (15-20 minutes)

(a) **PrideTalk Corp.**
INTANGIBLES SECTION OF BALANCE SHEET
December 31, 2014

Patent, net of accumulated amortization (Schedule 1)	\$864,000
Franchise, net of accumulated amortization (Schedule 2)	<u>261,000</u>
Total intangibles	<u>\$1,125,000</u>

Schedule 1: Calculation of Patent from Marvin Inc.

Cost of patent at date of purchase	\$1,200,000
Amortization of patent for 2013 (\$1,200,000/10 yrs)	<u>(120,000)</u>
	1,080,000
Amortization of patent for 2014 (\$1,080,000/5 yrs)	<u>(216,000)</u>
Patent balance	<u>\$864,000</u>

Schedule 2: Calculation of Franchise from Burr Ltd.

Cost of franchise at date of purchase	\$ 290,000
Amortization of franchise for 2014 (\$290,000 ÷ 10)	<u>(29,000)</u>
Franchise balance	<u>\$ 261,000</u>

(b) **PrideTalk Corp.**
Income Statement Effect
For the year ended December 31, 2014

Revenue from franchise	\$1,400,000
Expenses:	
Patent from Marvin Inc.:	
Amortization of patent for 2014 (Schedule 1)	216,000
Franchise from Burr Ltd.:	
Amortization of franchise for 2014 (Schedule 2)	\$ 29,000
Payment to Burr Ltd. (\$1,400,000 X 5%)	<u>70,000</u>
	99,000

EXERCISE 12-10 (Continued)

Research and development expense	<u>247,000</u>
Net increase in income	<u><u>\$838,000</u></u>

- (c) If PrideTalk is a public company, the accounting would remain consistent with that provided above. PrideTalk would have additional options under IFRS to use the revaluation model to measure intangible asset(s) after acquisition; however this would only be possible if there is an active market for the intangible asset(s). In addition, under IFRS, an assessment of estimated useful life is required at each reporting date.

Under IFRS, costs associated with the development of internally generated intangible assets that meet the six development phase criteria for capitalization are capitalized (no policy choice). Under ASPE, costs associated with the development of internally generated intangible assets that meet the six development phase criteria for capitalization may be capitalized or expensed, depending on the entity's accounting policy.

EXERCISE 12-11 (25-30 minutes)

(a) Research and Development Expense	1,800,000	
Cash.....		1,800,000
Costs incurred before the development phase criteria for capitalization are fulfilled are not capitalized		
Intangible Assets - Software.....	2,900,000*	
Cash.....		2,900,000
(\$4,700,000 – \$1,800,000)		

***Under ASPE, costs associated with development of internally generated intangible assets that meet the six development phase criteria for capitalization may be capitalized or expensed, depending on the entity’s accounting policy.**

The journal entry if the accounting policy was to expense all research and development costs would be as follows:

Research and Development Expense	4,700,000	
Cash		4,700,000

(b) Amortization Expense	362,500	
Accumulated Amortization –		
Software.....		362,500
(1/8 X \$2,900,000 = \$362,500)		

This assumes the benefits will be received equally over the eight-year period. Alternatively, if revenues are expected to be uneven over the eight years, it might be preferable to amortize the costs on an activity basis – either on a per unit basis or based on the revenues generated relative to the total revenues expected. In the latter case, amortization expense would amount to (\$2.7/\$12) X \$2.9 million = \$652,500.

EXERCISE 12-11 (Continued)

(c) The software costs should be reported on the 12/31/15 balance sheet at a carrying amount of $\$2,900,000 - \$362,500 = \$2,537,500$ (or of $\$2,900,000 - \$652,500 = \$2,247,500$ using an amortization method based on relative revenue).

(d) Impairment testing for limited-life assets under ASPE

- Under ASPE, the cost recovery impairment model is applied
- Software is a limited-life intangible asset and would be tested for potential impairment whenever events and circumstances indicate the carrying amount may not be recoverable. If there are any indicators of impairment, carrying amount of the asset is compared to undiscounted future net cash flows of the asset, to determine if the asset is impaired. If the asset is impaired, an impairment loss is calculated and recorded as the difference between the asset's carrying amount and its fair value.
- Under ASPE, an impairment loss may not be reversed.

Therefore, if the asset was considered impaired (carrying amount not recoverable), the net realizable value (as an indicator of what its fair value might be) would be valuable information in measuring the amount of the impairment loss.

EXERCISE 12-11 (Continued)

(e) If the company prepares financial statements under IFRS:

- **The rational entity impairment model is applied**
- **At the end of each reporting period, the asset is assessed for indicators of possible impairment. If there are any indicators of possible impairment, the asset is tested for impairment.**
- **If the carrying amount is higher than the recoverable amount (which is the higher of the value in use and the fair value less costs to sell), the asset is impaired and an impairment loss is calculated and recorded as the difference between the asset's carrying amount and its recoverable amount.**
- **Costs associated with development of internally generated intangible assets that meet the six development phase criteria for capitalization are capitalized (no policy choice).**
- **Under IFRS, an impairment loss may be reversed in the future, although the reversal is limited by what the carrying amount of the asset would have been if no impairment had been recognized initially.**

Because the net realizable value (NRV) is, in effect, the asset's fair value less costs to sell, knowing the NRV is one of the variables in determining whether the asset is impaired and the amount of the impairment loss.

EXERCISE 12-12 (20-25 minutes)

(a) August 31, 2014

Administrative Expenses	14,200	
Cash.....		14,200

Application costs are expensed because the related future economic benefits are uncertain.

(b) June 30, 2015

Intangible Assets – Licences	112,000	
Cash.....		112,000
32 X \$3,500 = \$112,000		

(c) Cost model

December 31, 2016, 2017, 2018

Amortization expense.....	22,400	
Accumulated Amortization - Licences		22,400
\$112,000 / 5 yrs = \$22,400		

Cost of licences at date of purchase	\$112,000
Amortization of licences for 2015 (\$112,000 / 5 yrs X 6/12)	(11,200)
Amortization of licences for 2016-18 (\$112,000 / 5 yrs X 3)	<u>(67,200)</u>
Carrying amount of Licences, as at December 31, 2018	<u>\$33,600</u>

EXERCISE 12-12 (Continued)

Under IFRS, the licences would be tested for impairment using the rational entity impairment model:

As at December 31, 2018:

Carrying amount of the licences (\$112,000 - \$11,200 – (\$22,400 X 3 yrs))	\$33,600
--	-----------------

Recoverable amount of the licences (higher of value in use \$6,200 X 32 and fair value less costs to sell (((\$1,400 - \$200) X 32))	\$198,400
---	------------------

Recoverable amount exceeds carrying amount, therefore no impairment loss in 2018.

(d) Revaluation model
(Asset adjustment method)

December 31, 2016		
Amortization expense.....	22,400	
Accumulated Amortization -		
Licences		22,400
\$112,000 / 5 yrs = \$22,400		

Accumulated Amortization		
- Licences	33,600	
Intangible Assets - Licences		33,600
\$11,200 + \$22,400 = \$33,600		

The Intangible Assets – Licences account is now (\$112,000 - \$33,600 =) \$78,400, and the related Accumulated Amortization account is zero.

EXERCISE 12-12 (Continued)

Intangible Assets - Licences	56,000	
Revaluation Surplus (OCI).....		56,000
\$4,200 X 32 - \$78,400 = \$56,000		

Carrying amount of Intangible Assets - Licences as at December 31, 2016 = \$134,400 (\$4,200 X 32 or \$78,400 + \$56,000).

December 31, 2017

Amortization expense	38,400	
Accumulated Amortization -		
Licences		38,400
\$134,400 / 3.5 yrs = \$38,400		

December 31, 2018

Amortization expense.....	38,400	
Accumulated Amortization -		
Licences		38,400

Accumulated Amortization –

Intangible Assets - Licences.....	76,800	
Intangible Assets - Licences		76,800
\$38,400 + \$38,400 = \$76,800		

The Intangible Assets – Licences account is now (\$134,400 - \$76,800 =) \$57,600, and the related Accumulated Amortization account is zero.

Revaluation Surplus (OCI).....	12,800	
Intangible Assets – Licences		12,800
\$57,600 - (\$1,400 X 32) = \$12,800		

EXERCISE 12-12 (Continued)

Under IFRS, the licences would be tested for impairment using the rational entity impairment model:

As at December 31, 2018:

Carrying amount of the licences (\$57,600 - \$12,800) OR (\$1,400 X 32)	\$44,800
--	-----------------

Recoverable amount of the licences (higher of value in use \$6,200 X 32 and fair value less costs to sell ((\$1,400 - \$200) X 32))	\$198,400
--	------------------

Recoverable amount exceeds carrying amount, therefore no impairment loss in 2018.

- (e) **The revaluation model can only be applied to intangible assets that have a fair value determined in an active market. To verify that there is an active market for an intangible asset, an auditor would verify that the items are homogenous (interchangeable), that there is a good supply of willing buyers and sellers, and that the prices are available to the public. In this case, the taxi licences are interchangeable (e.g. they do not expire), and there appears to be a good supply of willing buyers and sellers. Assuming that the prices of the taxi licences are freely available to the public (e.g. through a central posting system), there would be an active market for the taxi licences and they could be measured using the revaluation model.**

EXERCISE 12-13 (20-25 minutes)

- (a) Under IFRS, the recoverable amount is the higher of value in use and fair value less costs to sell (both of which are discounted amounts). In this case, the licence is impaired at the end of 2014 since:

Recoverable amount of \$475,000 < Carrying amount of \$530,000.
The impairment loss of \$55,000 would be recorded.

The journal entry under IFRS would be:

Dr. Loss on Impairment	55,000	
Cr. Accumulated Impairment		
Losses—Intangible Assets - Licences		55,000

- (b) If the estimates used to determine the asset's value in use and fair value less costs to sell have changed, then a reversal of the impairment is recognized. The reversal amount, however, is limited. The specific asset cannot be increased in value to more than what its carrying amount would have been, net of amortization, if the original impairment loss had never been recognized. The carrying amount would have been \$530,000 - \$53,000 = \$477,000.

In this case, there would be a reversal since the
Recoverable amount of \$450,000 > Carrying amount of \$427,500*
* Carrying amount at end of 2015 = 475,000 – 47,500 [amortization
475,000/10] = \$427,500

Therefore carrying amount can be increased to \$450,000.
Reversal = 450,000 – 427,500 = \$22,500.

Accumulated Impairment Losses – Licences	22,500	
Recovery of Loss from Impairment		22,500

EXERCISE 12-13 (Continued)

(c) If the licence's fair value is \$500,000 at the end of 2015, the recoverable amount at the end of 2015 would be \$500,000 (since recoverable amount is the higher of value in use and fair value less costs to sell). However, the licence cannot be increased in value to more than what its carrying amount would have been, net of amortization, if the original impairment loss had never been recognized (i.e. \$530,000 – \$53,000 amortization = \$477,000).

Therefore carrying amount can be increased to \$477,000.

Reversal = \$477,000 – \$427,500 = \$49,500.

Accumulated Impairment Losses – Licences	49,500	
Recovery of Loss from Impairment		49,500

EXERCISE 12-14 (10-15 minutes)

(a) Under ASPE, for a limited-life asset, the undiscounted future cash flows are compared to the carrying amount. In this case, there is no impairment loss under ASPE since:

Recoverable amount (undiscounted future cash flows) of \$535,000 > Carrying amount of \$530,000

(b) Recoverable amount (undiscounted future cash flows) of \$500,000 > Carrying amount of \$477,000 (\$530,000 – \$53,000 amortization) at the end of 2015, therefore there is no impairment loss under ASPE. In any case, reversal of impairment loss is not permitted under ASPE.

(c) The answer to part (b) would not change if the licence's fair value is \$500,000 because under ASPE, the impairment test compares carrying amount of the asset to undiscounted future cash flows. The impairment test is not affected by fair value of the licence.

EXERCISE 12-15 (20-25 minutes)

- (a) Under IFRS, indefinite-life intangible assets are tested for impairment annually (even if there is no indication of impairment), using the Rational Entity Impairment Model (the same test as for limited-life intangible assets). In this case, the licence is impaired at the end of 2014 since:

Recoverable amount of \$475,000 < Carrying amount of \$530,000.

The impairment loss of \$55,000 would be recorded.

The journal entry under IFRS would be:

Dr. Loss on Impairment	55,000
 Cr. Accumulated Impairment	
 Losses - Licences	55,000

- (b) If the estimates used to determine the asset's value in use and fair value less costs to sell have changed, then a reversal of the impairment is recognized if the recoverable amount exceeds the carrying amount. The reversal amount, however, is limited. The specific asset cannot be increased in value to more than what its carrying amount would have been, if the original impairment loss had never been recognized.

However, in this case, there is no reversal since the recoverable amount (\$450,000) does not exceed the carrying amount (\$475,000).

Since this asset has an indefinite life, in 2015 there is further impairment since:

Recoverable amount of \$450,000 < Carrying amount of \$475,000.

EXERCISE 12-15 (Continued)

An impairment loss of \$25,000 would be recorded.

The journal entry under IFRS would be:

Dr. Loss on Impairment	25,000
Cr. Accumulated Impairment	
Losses - Licences	25,000

- (c) If the licence's fair value is \$500,000 at the end of 2015, the recoverable amount at the end of 2015 would be \$500,000 (since recoverable amount is the higher of value in use and fair value less costs to sell). The licence cannot be increased in value to more than what its carrying amount would have been, if the original impairment loss had never been recognized (i.e. \$530,000).

Therefore carrying amount can be increased to \$500,000.

Reversal = \$500,000 – \$475,000 = \$25,000.

Accumulated Impairment Losses – Licences	25,000
Recovery of Loss from Impairment	25,000

EXERCISE 12-16 (10-15 minutes)

- (a) Under ASPE, indefinite-life intangible assets are tested for impairment when circumstances indicate that the asset may be impaired. However, the test differs from the test for limited-life assets. A fair value test is used, and an impairment loss is recorded when the carrying amount exceeds the fair value of the intangible asset. In this case, the licence is impaired at the end of 2014 since:

Fair value of \$425,000 < Carrying amount of \$530,000.
The impairment loss of \$105,000 would be recorded.

The journal entry under ASPE would be:

Dr. Loss on Impairment	105,000	
Cr. Accumulated Impairment		
Losses - Licences		105,000

- (b) Under ASPE, the recoverable amount refers to undiscounted future cash flows, which does not affect the impairment test for indefinite-life intangible assets.
- (c) Under ASPE, reversal of impairment losses is not permitted.

EXERCISE 12-17 (15-20 minutes)

(a)	December 31, 2014	
	Loss on Impairment.....	550,000*
	Accumulated Impairment Losses -	
	Copyrights	550,000

Since the carrying amount of the copyright exceeds the undiscounted future cash flows there is impairment. The impairment loss is calculated as follows:

*Carrying amount	\$2,150,000
Fair value	<u>1,600,000</u>
Loss on impairment	<u>\$550,000</u>

(b)	Amortization Expense	160,000*
	Accumulated Amortization -	
	Copyrights	160,000

*New carrying amount	\$1,600,000
Useful life	<u>÷ 10 years</u>
Amortization per year	<u>\$ 160,000</u>

- (c) No entry is necessary. Reversal of impairment losses is not permitted under ASPE.
- (d) The copyright would be tested for impairment after the adjusting entry for amortization is recorded. The regular amortization calculation should be done first, prior to testing for impairment. The amortization expense would be shown as part of operating expenses (or as part of a product cost) whereas the impairment loss would be shown as part of other expenses and losses. Amortization expense is a recurring annual expense whereas impairment loss is only recorded when the asset is impaired.

EXERCISE 12-18 (15-20 minutes)

- (a) Under IFRS, the recoverable amount is the higher of value in use and fair value less costs to sell (both of which are discounted amounts). In this case, the copyright is impaired at the end of 2014 since:

Recoverable amount of \$1,850,000 < Carrying amount of \$2,150,000.

The impairment loss of \$300,000 would be recorded.

The journal entry under IFRS would be:

Dr. Loss on Impairment	300,000	
Cr. Accumulated Impairment		
Losses – Copyrights		300,000

- (b) Amortization for 2015 will be based on the new carrying amount of \$1,850,000, divided over the remaining useful life of 10 years:

Amortization Expense.....	185,000	
Accumulated Amortization –		
Copyrights		185,000

EXERCISE 12-18 (Continued)

(c)

Reversal of impairment under IFRS:

If the estimates used to determine the asset's value in use and fair value less costs to sell have changed, then a reversal of the impairment is recognized if the recoverable amount exceeds the carrying amount. The reversal amount, however, is limited. The specific asset cannot be increased in value to more than what its carrying amount would have been, net of accumulated amortization, if the original impairment loss had never been recognized.

In this situation, there will be a reversal since:

Recoverable amount of \$2,200,000 > Carrying amount \$1,665,000 (\$1,850,000 – amortization of \$185,000 for 2015).

The reversal will be **LIMITED** so that the asset's carrying amount is not more than what its carrying amount would have been, net of accumulated amortization, if the original impairment loss had never been recognized (i.e. \$2,150,000 – amortization of \$215,000 for 2015 = \$1,935,000).

The reversal will be limited to \$270,000 (\$1,935,000 - \$1,665,000), to adjust the carrying amount to \$1,935,000 (not \$2,200,000).

The journal entry would be:

Accumulated impairment Losses - Copyright.....	270,000
Recovery of Loss from Impairment	270,000

EXERCISE 12-19 (15-20 minutes)

Net assets of Athenian as reported		\$272,000
Adjustments to fair value		
Increase in land value	\$40,000	
Decrease in equipment value	(12,000)	<u>28,000</u>
Fair value of identifiable net assets		<u>300,000</u>
Fair value of consideration transferred		<u>382,000</u>
Amount of goodwill to be recorded		<u>\$82,000</u>

The journal entry to record this transaction is as follows:

Cash	118,000	
Land	110,000	
Buildings	244,000	
Equipment	173,000	
Intangible Assets - Copyrights	98,000	
Goodwill	82,000	
Accounts Payable		92,000
Notes Payable		351,000
Cash		382,000

In reality, only cash equal to the difference would change hands:
\$382,000 – \$118,000 = \$264,000

EXERCISE 12-20 (15-20 minutes)

(a)	Cash	75,000	
	Accounts Receivable	114,000	
	Inventory.....	125,000	
	Land	60,000	
	Buildings	75,000	
	Equipment	90,000	
	Goodwill.....	238,000	
	Allowance for Doubtful		
	Accounts		12,000
	Accounts Payable		300,000
	Notes Payable		50,000
	Cash.....		415,000

It is likely that only cash of \$415,000 – \$75,000 = \$340,000 would actually change hands.

Note that the building and equipment would be recorded at the 7/1/14 cost to Zoe; accumulated amortization accounts would not be recognized.

(b)	Loss on Impairment.....	50,000	
	Accumulated Impairment Losses		
	(Goodwill).....		50,000

Carrying amount (incl. goodwill)	\$500,000
Fair value of unit	<u>450,000</u>
	\$50,000

(c)
 Note that a purchase price of \$204,000 is less than the fair value of the net assets of Soorya, resulting in negative goodwill of \$23,000. Current standards require the excess to be recognized as a gain in net income. However, this cannot be done without a thorough reassessment of all the variables, values, and measurement procedures used that resulted in this gain.

EXERCISE 12-20 (Continued)

If the review reveals no overstatement of assets, record as follows:

Cash	75,000	
Accounts Receivable	114,000	
Inventory	125,000	
Land	60,000	
Buildings	75,000	
Equipment	90,000	
Allowance for Doubtful		
Accounts		12,000
Accounts Payable		300,000
Cash		204,000
Gain		23,000

Alternatively – if the review reveals an overstatement of inventory of \$23,000, record as follows:

Cash	75,000	
Accounts Receivable	114,000	
Inventory (\$125,000 – \$23,000)	102,000	
Land	60,000	
Buildings.....	75,000	
Equipment.....	90,000	
Allowance for Doubtful		
Accounts		12,000
Accounts Payable		300,000
Cash		204,000

EXERCISE 12-20 (Continued)**(d) Impairment test under IFRS**

Loss on Impairment.....	25,000	
Accumulated Impairment Losses		
(Goodwill).....		25,000
Carrying amount (incl. goodwill)	500,000	
Recoverable amount	<u>475,000*</u>	
	25,000	

* Recoverable amount:

Higher of VIU of 475,000 and FV-SC of 425,000 (450,000-25,000)

- (e) Payment of total consideration of \$465,000 for Soorya resulted in payment for goodwill of \$238,000. Goodwill is “an asset representing the future economic benefits arising from other assets acquired in a business combination that are not individually identified or separately recognized”. In paying for goodwill of \$238,000, Zoe may have considered the value of Soorya’s established reputation, good credit rating, top management team, and/or well-trained employees that make the value of the business as a whole greater than the fair value of its identifiable net assets.

EXERCISE 12-21 (15-20 minutes)

(a) **December 31, 2014**

Loss on Impairment.....	44 million	
Accumulated Impairment Losses (Goodwill).....		44 million
Carrying amount (incl. goodwill)	390 million	
Fair value of unit	<u>346 million</u>	
	44 million	

(b) Reversal of impairment losses is not permitted under ASPE.

(c) Impairment under IFRS

Loss on Impairment.....	5 million	
Accumulated Impairment Losses (Goodwill).....		5 million
Carrying amount (incl. goodwill)	390 million	
Recoverable amount	<u>385 million*</u>	
	5 million	

* Recoverable amount:
Higher of VIU of 385 and FV-Selling Costs of 341 (346-5)

(d) Reversal of goodwill impairment losses is not permitted under IFRS.

***EXERCISE 12-22 (10-15 minutes)**

Pretax accounting income		\$725,000
Add: Loss from discontinued operations		<u>44,000</u>
		769,000
Deduct: Additional depreciation based on fair value and extended life	\$ 57,500*	
Unusual, non-recurring gains	<u>152,000</u>	<u>209,500</u>
Normalized earnings		<u><u>\$559,500</u></u>
*Adjusted depreciation for year on building \$115,000 X 3 X 1/2 (remaining life doubled)		\$172,500
Less: Depreciation per year based on book value and original life		<u>115,000</u>
Increase in annual depreciation		<u><u>\$ 57,500</u></u>

The amortization of identifiable intangibles and the profit-sharing payments to the employees are not part of the income adjustment because they are recurring expenses.

***EXERCISE 12-23 (20-25 minutes)**

(a) Fair value of Belgian's identifiable net assets	\$460,000
Normal rate of return	X .07
Normal earnings	<u>\$ 32,200</u>

Belgian's average earnings for the last 5 years:

2010	\$ 75,000
2011	53,000
2012	84,000
2013	87,000
2014	<u>69,000</u>
	<u>\$368,000</u>

$$\text{Average earnings: } \frac{\$368,000}{5} = \$73,600$$

Average earnings	\$73,600
Normal earnings	<u>(32,200)</u>
Excess earnings	<u>\$41,400</u>

Goodwill—Capitalization at 23%:

$$\frac{\text{Excess Earnings}}{\text{Capitalization Rate}} = \frac{\$41,400}{.23} = \$180,000$$

\$180,000 should be paid for goodwill. Therefore Mooney would pay \$460,000 + \$180,000 = \$640,000 for the company.

(b) Goodwill—Capitalization at 18%:

$$\frac{\text{Excess Earnings}}{\text{Capitalization Rate}} = \frac{\$41,400}{.18} = \$230,000$$

The payment for the company as a whole would be \$460,000 + \$230,000 = \$690,000.

***EXERCISE 12-23 (Continued)**

(c) **Goodwill = 5 X \$41,400 = \$207,000**
Price paid for the company = \$460,000 + \$207,000 = \$667,000

(d) Excess earnings	\$41,400
Present value of annuity of 1 factor,	
5 years @ 15%	<u>3.35216</u>
Estimated goodwill	<u>\$138,779</u>

Amount paid for the company = \$460,000 + \$138,779 = \$598,779

***EXERCISE 12-24 (10-15 minutes)**

$$(a) \quad \text{Richmond's valuation of goodwill} = \frac{\$175,000}{.15} = \$1,166,667$$

$$\begin{aligned} \text{Aswan's valuation of goodwill} &= \\ 4.56376^* \times \$175,000 &= \underline{(798,658)} \\ \text{Difference} &= \underline{\underline{\$368,009}} \end{aligned}$$

***Present value of annuity of 1 factor, 7 years @ 12%.**

- (b) Both the seller and the buyer are attempting to determine the present value of the goodwill, which consists of future receipts: the annual excess earnings. Because these future receipts are not contractual in nature, a considerable degree of uncertainty surrounds their measurement. While both parties agree on the amount of excess earnings, they disagree as to the certainty of the continuance of such excess earnings. As a result, differing risk factors and longevity factors are imputed with regard to the same base of \$175,000 in their valuations of goodwill. The seller assumes a discount factor of 15% in perpetuity while the buyer assumes a risk factor of 12% for seven years.

***EXERCISE 12-25 (10-15 minutes)**

Net assets (based on fair value)	
of Moose Jaw CD Corp.	\$ 675,000*
Normal rate of return	<u> .15</u>
Normal earnings	101,250
Expected average earnings	<u> 125,000</u>
Excess earnings	23,750
Present value of annuity of 1 factor, 5 years @ 15%	<u> 3.35216</u>
Estimated goodwill	<u> \$79,614</u>

*Book value as given	\$525,000
Inventory increase	<u> 150,000</u>
Net assets (fair value)	<u> \$675,000</u>

Fair value of identifiable net assets	\$675,000
Estimated goodwill	<u> 79,614</u>
Estimated fair value of consideration to transfer	<u> \$754,614</u>

EXERCISE 12-26 (10-15 minutes)*Average earnings over the past 3 years:**

Total income for the 3 years	\$375,000
Add: Loss on discontinued operations	25,000
Deduct: Unusual and non-recurring gain	<u>(95,000)</u>
Adjusted total income	<u>\$305,000</u>

Average earnings: $\frac{\$305,000}{3} = \$101,667$

Average earnings	\$ 101,667
Rate of return on investment	<u>÷ .25</u>
Total investment	<u>\$406,668</u>

Total investment	\$406,668
Less: Goodwill	<u>-75,000</u>
Fair value of the identifiable net assets	<u>\$331,668</u>

TIME AND PURPOSE OF PROBLEMS

Problem 12-1 (Time 25-35 minutes)

Purpose—to provide the student with an opportunity to determine whether a number of different items should be capitalized or expensed. Items involved are advertising, research and development costs, goodwill, legal costs, pre-operating costs and promotional costs. In addition, the amount included in the company's income statement must be determined.

Problem 12-2 (Time 20-30 minutes)

Purpose—the student determines the cost and amortization of a franchise, patent, and trademark and shows how they are disclosed on the balance sheet. The student prepares a schedule of expenses resulting from the intangibles transactions. Also covers IFRS.

Problem 12-3 (Time 50-70 minutes)

Purpose—to provide the student with a comprehensive problem in accounting for intangible assets. The student is required to adjust the accounts included in a given trial balance to reflect proper classification and amortization at the end of the second year of a firm's operations. The problem is complicated by the fact that proper adjusting entries were not prepared at the end of the first year, necessitating the correction of prior year's errors. The student is required to prepare an eight-column work sheet to include a trial balance, adjustments, a balance sheet, and an income statement. This is an excellent problem to review the accounting procedures for all types of intangibles in a realistic manner. Also covers IFRS.

Problem 12-4 (Time 20-25 minutes)

Purpose—to provide the student with an opportunity to appropriately reclassify amounts charged to a single intangible asset account. Capitalized in the account are amounts representing franchise costs, prepaid rent, licence, pre-operating costs, organization costs, prior net loss, patents, goodwill, royalty expenses, and R & D costs. The student must also be alert to the fact that several transactions require that an adjustment of Retained Earnings be made. The problem provides a good summary of accounting for intangibles.

TIME AND PURPOSE OF PROBLEMS (CONTINUED)

Problem 12-5 (Time 20-25 minutes)

Purpose—to provide the student with an opportunity to determine income statement and balance sheet presentation for costs related to research and development of patents. The problem calls on the student to determine whether costs incurred are properly capitalized or expensed. The problem addresses the basic issues involved in accounting for R & D costs and patents.

Problem 12-6 (Time 30-40 minutes)

Purpose—to provide the student with an opportunity to apply the revaluation model using the asset adjustment method as well as the proportionate method, and to compare both methods.

Problem 12-7 (Time 30-40 minutes)

Purpose—to provide the student with an opportunity to prepare the intangible assets section of the balance sheet including an indefinite-life trade name, a limited-life copyright and goodwill. Impairment of the intangible assets must also be assessed and recorded. A good review of impairment of the three types of intangible assets.

Problem 12-8 (Time 15-20 minutes)

Purpose—Builds on P12-7 and covers IFRS.

Problem 12-9 (Time 25-30 minutes)

Purpose—to provide the student with an opportunity to determine the useful life of various intangible assets. Examples must be provided for testing for impairment of the various intangibles. The problem deals with applying the criteria for determining useful life and whether assets have an indefinite useful life by applying the theory.

Problem 12-10 (Time 20-25 minutes)

Purpose—to provide an opportunity for the student to determine the amount of goodwill included in the purchase price of a business. The student must then test goodwill for impairment assuming two different fair values for the division. The journal entry for impairment and income statement presentation must also be provided. Also covers IFRS.

TIME AND PURPOSE OF PROBLEMS (CONTINUED)

Problem 12-11 (Time 15-20 minutes)

Purpose—to provide the student with goodwill impairment calculations under IFRS.

*Problem 12-12 (Time 20-25 minutes)

Purpose—to provide an opportunity for the student to determine the amount of goodwill included in the purchase price of a business under four methods. The methods include capitalization of excess earnings in perpetuity and for a four-year period, and a purchase of excess earnings for the next four years. The student is also required to prepare a journal entry reflecting the purchase of the business. The problem provides practice in the calculation of goodwill.

*Problem 12-13 (Time 25-30 minutes)

Purpose—to present the student with an opportunity to determine an amount for goodwill based on three different methods. The student is then required to write a letter indicating the possible values and what price might be offered for this potential acquisition.

SOLUTIONS TO PROBLEMS

PROBLEM 12-1

1. Such costs are prohibited from being capitalized as an intangible asset. The dealer relations program cost of \$3,000,000 should be expensed in the current period because it would be difficult to match and measure the future benefits. Advertising (marketing) costs must be expensed as incurred or when the advertising takes place for the first time. In either case, advertising expense would be charged in the current period.
2. Pilot plant cost of \$5,500,000 is a research and development cost which should be expensed as incurred. The pilot plant will not be reused after the experimental work is completed. If any property, plant or equipment was purchased, it would be capitalized and depreciated over its useful life.
3. The reception cost of \$12,700 and training costs of \$64,400 would be expensed in the current period.

The wheelchair ramp of \$100,000 would be considered an addition to the building and would be capitalized as part of the building cost. It would be depreciated over the useful life of the building (or a shorter period if the ramp is expected to last fewer years).

The uniform cost of \$41,600 would be expensed in the current period since it would have a period of expected benefit of approximately one year.

PROBLEM 12-1 (Continued)

- 4. To record the purchase of Eagle Company, \$5,200,000 should be capitalized to identifiable net assets and \$800,000 should be capitalized to goodwill. This transaction represents the acquisition of a company which should provide future benefits. The goodwill would not be amortized. The goodwill would be assigned to a cash-generating unit in order to be tested for impairment. The cash-generating unit would be reviewed for impairment on an annual basis and any decline in carrying amount of the cash-generating unit below recoverable amount would be written off as an impairment loss.**
- 5. All advertising costs would be expensed.**
- 6. The legal fees for the patent application of \$400,000 should be capitalized as an intangible asset. Amortization of the patent would be over the patent's 10-year economic life, or \$40,000 annually. The amount of amortization expense for the patent for the six-month period November 1, 2013, to April 30, 2014, would be \$20,000 ($\$40,000 \times 6/12$). The net amount of the patent would be \$380,000 ($\$400,000 - \$20,000$) on the April 30, 2014 statement of financial position.**

PROBLEM 12-2

(a) **Canberra Corporation**
Intangible Assets
December 31, 2014

Franchise, net of accumulated amortization (Schedule 1)	\$61,309
Patent, net of accumulated amortization of (Schedule 2)	11,333
Trademark, net of accumulated amortization of (Schedule 3)	<u>29,747</u>
Total intangible assets	<u><u>\$102,389</u></u>

<u>Schedule 1</u>	<u>Franchise</u>	
Cost of franchise on 1/1/14 (\$35,000 + \$33,121)		\$68,121
2014 amortization (\$68,121 X 1/10)		<u>(6,812)</u>
Cost of franchise, net of amortization		<u><u>\$61,309</u></u>

<u>Schedule 2</u>	<u>Patent</u>	
Cost of securing patent on 1/2/14		\$13,600
2014 amortization (\$13,600 X 1/6)		<u>(2,267)</u>
Cost of patent, net of amortization		<u><u>\$11,333</u></u>

<u>Schedule 3</u>	<u>Trademark</u>	
Cost of trademark on 7/1/11		\$28,600
Amortization, 7/1/11 to 7/1/14 (\$28,600 X 3/15)		<u>(5,720)</u>
Book value on 7/1/14		22,880
Cost of successful legal defence on 7/1/14		<u>8,160</u>
Book value after legal defence		31,040
Amortization, 7/1/14 to 12/31/14 (\$31,040 X 1/12 X 6/12)		<u>(1,293)</u>
Cost of trademark, net of amortization		<u><u>\$29,747</u></u>

PROBLEM 12-2 (Continued)

(b) **Canberra Corporation**
Expenses Resulting from Selected Intangible Assets
Transactions
For the Year Ended December 31, 2014

Interest expense ($\$33,121 \times 8\%$)	\$ 2,650
Franchise amortization (Schedule 1)	6,812
Franchise fee ($\$800,000 \times 5\%$)	40,000
Patent amortization (Schedule 2)	2,267
Trademark amortization (Schedule 4)	<u>2,246</u>
Total intangible assets	<u>\$53,975</u>

Note: The \$45,000 of research and development expense incurred in developing the patent would have been expensed prior to 2014.

<u>Schedule 4</u>	<u>Trademark Amortization</u>	
Amortization, 1/1/14 to 6/30/14 ($\$28,600 \times 1/15 \times 6/12$)		\$ 953
Amortization, 7/1/14 to 12/31/14 (Schedule 3)		<u>1,293</u>
Total trademark amortization		<u>\$2,246</u>

(c) Under IFRS, the response would be similar. The company can choose to use the revaluation method for its subsequent accounting if an active market exists for the intangible assets.

PROBLEM 12-3

(a)

**Gelato Corporation
Year Ended December 31, 2014
Adjusting Journal Entries
(Not required)**

	-1-		
Machinery		40,700	
Intangible Assets - Patents			40,700
(To transfer cost of improving machinery to a PP&E account)			
	-2-		
Amortization Expense		5,147	
Accumulated Amortization - Patents			5,147
[To record 2014 patent amortization: 1/17 X (\$87,500) = \$5,147]			
	-3-		
Loss on Impairment		27,353	
Accumulated Impairment Losses - Patents			27,353
<p>1. Compare carrying amount with undiscounted future net cash flow: (\$87,500 – \$5,147 = \$82,353) and \$80,000). Patent is impaired</p> <p>2. Impairment loss = carrying amount – fair value: \$82,353 – \$55,000 = \$27,353</p>			

PROBLEM 12-3 (Continued)

	-4-		
Retained Earnings (\$60,000 / 15)		4,000	
Accumulated Amortization - Licenses			4,000
(re: Licensing Agreement No. 1)			

	-5-		
Retained Earnings		33,600	
Accumulated Impairment Losses -			33,600
Licenses			

(To write off the permanent 60 percent reduction in the expected revenue-producing value of licensing agreement No. 1 caused by the late December 2013 explosion [$(\$60,000 - \$4,000) \times 60\% = \$33,600$].

	-6-		
Amortization Expense		1,600	
Accumulated Amortization - Licenses			1,600
$(\\$60,000 - \\$4,000 - \\$33,600)/14 = \\$1,600$			
rounded re: Licensing Agreement No. 1			

	-7-		
Intangible Assets – Licenses		4,000	
Unearned Revenue			4,000
(To classify revenue received in advance on licensing agreement as unearned revenue re: Agreement No.2)			

	-8-		
Amortization Expense		12,000	
Accumulated Amortization - Licenses			12,000
To record 2014 amortization of licensing agreement No. 2			
$(1/5 \times \\$60,000)$			

PROBLEM 12-3 (Continued)

	-9-		
Retained Earnings		30,000	
Goodwill			30,000
(To expense incorporation costs improperly charged to Goodwill)			

	-10-		
Equipment		15,000	
Accounts Receivable		6,100	
Leasehold Improvements			21,100
(To charge the equipment account with movable equipment and to record a receivable from the landlord for the real estate taxes paid by Gelato)			

	-11-		
Depreciation Expense		1,500	
Retained Earnings		1,500	
Accumulated Depreciation - Leasehold Improvements			3,000
(To record 2013 and 2014 amortization of leasehold improvements based on 10 year life of lease (2 X 10% X \$15,000))			

	-12-		
Research and Development Expense		90,000	
Selling Expenses			90,000
(Salaries of \$110,000 x 50%) + materials consumed of \$35,000			

PROBLEM 12-3 (Continued)

General Ledger Account	Trial Balance		Adjustments		Income Statement		Stmt Fin Position	
	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit
Cash	\$57,000						\$57,000	
Accounts Receivable	87,000		\$6,100	(10)			93,100	
Allowance for Doubtful Accounts		\$1,500						\$1,500
Inventory	60,200						60,200	
Machinery	82,000		40,700	(1)			122,700	
Equipment	37,000		15,000	(10)			52,000	
Accumulated Amortization		26,200						26,200
-Patents	128,200			(1)	\$40,700		87,500	
Leasehold Improvements	36,100			(10)	21,100		15,000	
Prepaid Expenses	13,000						13,000	
Goodwill	30,000			(9)	30,000		0	
Intangible Assets - Licenses								
	116,000		4,000	(7)			120,000	
Accounts Payable		93,000						93,000
Unearned Revenue		17,280		(7)	4,000			21,280
Common Shares		300,000						300,000
Retained earnings, January 1, 2014		173,020	4,000	(4)				
			33,600	(5)				
			30,000	(9)				
			1,500	(11)				103,920

PROBLEM 12-3 (Continued)

General Ledger Account	Trial Balance		Adjustments		Income Statement		Stmt Fin Position		
	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit	
Sales		720,000				720,000			
Cost of Goods Sold	475,000				475,000				
Selling Expenses	180,000		(12)	90,000	90,000				
Interest Expense	29,500				29,500				
Totals	<u>\$1,331,000</u>	<u>\$1,331,000</u>							
Research and Development Expense			90,000	(12)	90,000				
Acc. Amort. – Patents				(2) 5,147				5,147	
Acc. Imp. Losses– Patents				(3) 27,353				27,353	
Acc. Dep. - Leasehold Improvements				(11) 3,000				3,000	
Acc. Amort. Licenses				(4) 4,000					
				(6) 1,600					
				(8) 12,000				17,600	
Loss on Impairment			27,353	(3)	27,353				
Acc. Imp. Losses. – Licences				(5) 33,600				33,600	
Depreciation Expense			1,500	(11)	1,500				
Amortization Expense			5,147	(2)					
			1,600	(6)					
			12,000	(8)	18,747				
			<u>\$271,385</u>		<u>\$271,385</u>	732,100	720,000	620,500	632,600
Net loss for 2014						12,100		12,100	
Totals					<u>\$732,100</u>	<u>\$732,100</u>	<u>\$632,600</u>	<u>\$632,600</u>	

PROBLEM 12-3 (Continued)**(b)**

Gelato Corporation
Statement of Financial Position
December 31, 2014

		<u>Assets</u>	
Current assets			
Cash			\$57,000
Accounts receivable	\$93,100		
Less allowance for doubtful accounts	<u>(1,500)</u>	91,600	
Inventory		60,200	
Prepaid expenses		<u>13,000</u>	
Total current assets			\$221,800
Property, plant, and equipment			
Machinery	122,700		
Equipment	<u>52,000</u>	174,700	
Less accumulated depreciation		<u>(26,200)</u>	
		148,500	
Leasehold improvements	15,000		
Less accumulated depreciation	<u>(3,000)</u>	<u>12,000</u>	
Total property, plant, and equipment			160,500
Intangible assets			
Patents	87,500		
Less accumulated amortization and impairment losses*	<u>(32,500)</u>	55,000	
Licensing agreements	120,000		
Less accumulated amortization and impairment losses**	<u>(51,200)</u>	<u>68,800</u>	
Total intangible assets			<u>123,800</u>
Total assets			<u>\$506,100</u>

* $\$5,147 + \$27,353$ ** $\$17,600 + \$33,60$

PROBLEM 12-3 (Continued)**Liabilities and Shareholders' Equity**

Current liabilities		
Accounts payable	\$ 93,000	
Unearned revenues	<u>21,280</u>	
Total current liabilities		\$ 114,280
Shareholders' equity		
Share capital		
Common shares	\$ 300,000	
Retained earnings	<u>91,820</u>	
Total shareholders' equity		<u>391,820</u>
Total liabilities and shareholders' equity		<u>\$506,100</u>

Gelato Corporation
Income Statement
For the Year Ended December 31, 2014

Sales		\$720,000
Cost of goods sold		<u>475,000</u>
Gross profit		245,000
Operating expenses		
Selling expenses	\$90,000	
Research and development expenses	90,000	
Amortization expense	18,747	
Depreciation expense	<u>1,500</u>	<u>200,247</u>
Income from operations		44,753
Other expenses and losses		
Interest expense	29,500	
Loss on impairment	<u>27,353</u>	<u>56,853</u>
Loss before income tax		(12,100)
Income tax expense or recovery		<u>xxxx</u>
Net loss		<u>\$(12,100)</u>
	<u>-xxx</u>	

***Note to instructor: the income tax expense would usually be shown here.**

PROBLEM 12-3 (Continued)**(c) Reporting under IFRS**

The impairment test for the patent would be different under IFRS:

Recoverable amount = higher of VIU and FV less selling costs

= higher of (\$75,000) or (\$55,000 – \$5,000)

= \$75,000

Carrying value = \$87,500 – \$5,147 = \$82,353

Impairment loss = \$75,000 – \$82,353 = \$7,353

PROBLEM 12-4

(a)

Intangible Assets – Franchises	35,000	
Prepaid Rent	25,000	
Retained Earnings	17,000	
Intangible Assets - Patents (\$65,400 + \$13,350)	78,750	
Intangible Assets – Licenses	86,000	
Research and Development Expense	75,000	
Goodwill (287,500 – 175,000)	112,500	
Intangible Assets - Development Costs	175,000	
Royalties Expense	2,775	
Intangible Assets		607,025
Amortization Expense		
(\$35,000 ÷ 8)	4,375	
Retained Earnings (\$35,000 ÷ 8 X 6/12)	2,188	
Accumulated Amortization - Franchises		6,563
Rent Expense (\$25,000 ÷ 2)	12,500	
Retained Earnings (\$25,000 ÷ 2 X 3/12)	3,125	
Prepaid Rent		15,625
Amortization Expense	6,525	
Accumulated Amortization – Patents		6,525
(\$65,400 X 10.5/120 months) + (\$13,350 X 7/116.5 months)		
Amortization Expense	14,333	
Accumulated Amortization - Licenses		14,333
(\$86,000 ÷ 5 X 10/12)		

PROBLEM 12-4 (Continued)

Amortization Expense	13,125
Accumulated Amortization –	
Development Costs ($\\$175,000 \div 10 \times$	13,125
9/12)	

- (b) **Goodwill is only recognized in the financial statements if the goodwill was purchased in a business combination. Therefore, its reported value, if any, would be the result of a verifiable transaction with an arm's length party, and any subsequent impairment testing conducted according to generally accepted accounting principles. An investor will understand that goodwill is a result of acquiring another business with unidentifiable value in excess of the target business's fair value of identifiable net assets, and that the entity is expected to benefit from this unidentifiable value. This is useful information for an investor. Recognizing goodwill separately from intangible assets allows investors to see the carrying amount of recorded goodwill (which is not an identifiable asset, and is not amortized), separate from the carrying amount of intangible assets (which are identifiable assets that are amortized if they have limited lives).**

PROBLEM 12-5

- (a) **Income statement items and amounts for the year ended December 31, 2014:**

Research and Development Expense*	\$185,167
Amortization of patent ($\\$102,500 \div 10$ years)	10,250

***The research and development expense could be listed by the components rather than in one total. The details of the research and development expense is as follows:**

Depreciation—building	
($\$185,000 \div 15$ years) X 50%	\$ 6,167
Salaries and employee benefits	
($\$87,000 + \$52,500$)	139,500
Other expenses ($\\$21,000 + \\$18,500$)	<u>39,500</u>
Total research and development expense	<u><u>\$185,167</u></u>

Development costs capitalized in 2014

Salaries and benefits	\$125,000
Other expenses	81,000
Depreciation of building	<u>6,167</u>
Total	<u><u>\$212,167</u></u>

PROBLEM 12-5 (Continued)

Statement of Financial Position items and amounts as of December 31, 2014:

Land	\$ 61,000
Building (net of accumulated depreciation of \$12,333)	172,667
Intangible Assets - Patents (net of accumulated depreciation of \$17,938)*	84,562
Intangible Assets - Development costs	212,167
	<u>530,396</u>

*** $(\$102,500 \div 10) \times 3/4 + (\$102,500 \div 10)$**

Research and development costs should be charged to expense when incurred, except for those expenditures that meet the six development phase criteria for capitalization including managerial intent to complete, and financial and technical viability.

The patent was acquired for manufacturing rights rather than for use in research and development activities. Consequently, the cost of the patent can be capitalized as an intangible asset and amortized over its useful life.

- (b) For costs to qualify as development costs to be capitalized, the company has to be able to demonstrate that the following conditions have been met.**
- 1. Technical feasibility of completing the project**
 - 2. Entity's intention to complete it to use or sell**
 - 3. Entity's ability to use or sell it**
 - 4. Availability of technical, financial and other resources needed to complete it and to use or sell it**
 - 5. The way in which the future economic benefits will be received; including the existence of a market for the asset if it will be sold, or for its usefulness to the entity if it will be used internally**
 - 6. Ability to reliably measure the associated costs attributable to the asset during development**

PROBLEM 12-6

(a) January 2, 2014

Intangible Assets – Licences	411,400	
Cash.....		411,400
22 X \$18,700 = \$411,400		

**(b) Revaluation model
(Asset adjustment method)****December 31, 2015**

Amortization Expense	51,425	
Accumulated Amortization – Intangible Assets - Licences.....		51,425
\$411,400 / 8 yrs = \$51,425		

Accumulated Amortization – Intangible Assets - Licences.....	102,850	
Intangible Assets - Licences		102,850
\$51,425 + \$51,425 = \$102,850		

The Intangible Assets – Licences account is now \$411,400 - \$102,850 = \$308,550, and the related Accumulated Amortization account is zero.

Revaluation Gain or Loss	125,950	
Intangible Assets - Licences		125,950
\$308,550 – (\$8,300 X 22) = \$125,950		

Carrying amount of Intangible Assets - Licences as at December 31, 2015 = \$182,600 (\$8,300 X 22 or \$308,550 - \$125,950).

There would be no impairment loss at December 31, 2015 because the value in use is higher than the fair value of the asset.

PROBLEM 12-6 (Continued)**December 31, 2016**

Amortization Expense.....	30,433	
Accumulated Amortization -		
Licences		30,433
\$182,600 / 6 yrs = \$30,433		

December 31, 2017

Amortization Expense	30,433	
Accumulated Amortization -		
Licences		30,433

Accumulated Amortization –

Intangible Assets - Licences.....	60,866	
Intangible Assets - Licences		60,866
\$30,433 + \$30,433 = \$60,866		

The Intangible Assets – Licences account is now \$182,600 - \$60,866 = \$121,734, and the related Accumulated Amortization account is zero.

Intangible Assets – Licences	252,266	
Revaluation Gain or Loss		125,950
Revaluation Surplus (OCI).....		126,316
(\$17,000 X 22) - \$121,734 = \$252,266		

The carrying amount of the licences at December 31, 2017 is \$17,000 X 22 = \$374,000, or \$121,734 + \$252,266 = \$374,000.

PROBLEM 12-6 (Continued)**(c) Revaluation model
(Proportionate method), Dec. 31, 2015**

Amortization expense	51,425
Accumulated Amortization - Licences.....	51,425
\$411,400 / 8 yrs = \$51,425	

	Before revaluation		Proportional after revaluation
Int. Assets - Licences	\$411,400	X 182,600 / 308,550	\$243,467
Accumulated amortization	<u>102,850*</u>	X 182,600 / 308,550	<u>60,867</u>
Carrying amount	<u>\$308,550</u>		<u>\$182,600</u>
*\$51,425 X 2			

Accumulated Amortization –			
Licences.....		41,983	
Revaluation Gain or Loss		125,950	
Intangible Assets - Licences			167,933
December 31, 2016			
Amortization expense		30,433	
 Accumulated Amortization –			
 Licences			30,433
\$182,600 / 6 yrs = \$30,433			
December 31, 2017			
Amortization expense		30,433	
 Accumulated Amortization –			
 Licences			30,433

PROBLEM 12-6 (Continued)

	<u>Before revaluation</u>		<u>Proportional after revaluation</u>
Int. Assets - Licences	\$243,467	X 374,000 / 121,734	\$747,997
Accumulated amortization	<u>121,733*</u>	X 374,000 / 121,734	<u>373,997</u>
Carrying amount	<u>\$121,734</u>		<u>\$374,000</u>
	*\$60,867 + \$30,433 X 2 = \$121,733		

Intangible Assets - Licences.....	504,530	
Revaluation Gain or Loss**		125,950
Revaluation Surplus (OCI).....		126,316
Accumulated Amortization - Licences		252,264
\$17,000 X 22 - \$121,734 = \$252,266		

****The increase in carrying amount is recorded as a credit to Revaluation Surplus (OCI), unless the increase reverses a revaluation decrease previously recognized in income. If so, the increase is recognized in income to the extent of the prior decrease. In this example, \$125,950 revaluation loss was recorded in income on December 31, 2015. Since there is an increase in carrying amount in excess of this amount on December 31, 2017, a \$125,950 revaluation gain is recorded in income on December 31, 2017.**

The carrying amount of the licences at December 31, 2017 is \$17,000 X 22 = \$374,000, or \$747, 997 - \$373,997.

PROBLEM 12-6 (Continued)

- (d) **The effects on the statement of comprehensive income are the same under both the asset adjustment method and the proportionate method. However the effects on the statement of financial position are different under each method. Under the asset adjustment method, the Intangible Assets – Licences account balance is the fair value of the licences at each revaluation date, and the related Accumulated Amortization – Intangibles - Licences account balance is zero. Under the proportionate method, the Intangible Assets – Licences account balance and the related Accumulated Amortization – Intangible Assets – Licences account balance are proportionately adjusted to reflect the new carrying amount, which is equal to the fair value of the licences at each revaluation date. An investor would likely prefer that Aquaculture use the proportionate method to apply the revaluation method, because the proportionate method presents an adjusted balance in the accumulated amortization account (versus presenting a zero balance in the accumulated amortization account, as under the asset adjustment method). This provides information about the relative age of the licences.**

PROBLEM 12-7

(a) Meridan Golf and Sports
INTANGIBLES SECTION OF BALANCE SHEET
December 31, 2014

Trade name	\$ 15,000
Copyright (net of accumulated amortization of \$313) (Schedule 1)	24,687
Goodwill (Schedule 2)	<u>50,000</u>
Total intangibles	<u>\$89,687</u>

Schedule 1 Calculation of Copyright

Cost of copyright at date of purchase	\$25,000
Amortization of Copyright for 2014 [(\$25,000 ÷ 40) X 1/2 year]	<u>(313)</u>
Book value of copyright at December 31	<u>\$24,687</u>

Schedule 2 Goodwill Measurement

Fair value of consideration transferred		\$650,000
Fair value of identifiable assets	700,000	
Fair value of identifiable liabilities	<u>(100,000)</u>	
Fair value of net identifiable assets		<u>600,000</u>
Value assigned to goodwill		<u>\$50,000</u>

Amortization expense for 2014 is \$313 (see Schedule 1). There is no amortization for the goodwill or the trade name, which are considered to have indefinite lives.

(b)

Amortization Expense	625	
Accumulated Amortization - Copyright (\$25,000 ÷ 40)		625

PROBLEM 12-7 (Continued)

There is a full year of amortization on the Copyright. There is no amortization for the goodwill or the trade name, which are considered indefinite life intangibles.

**Meridan Golf and Sports
INTANGIBLES SECTION OF BALANCE SHEET
December 31, 2015**

Trade name	\$ 15,000
Copyright (net of accumulated amortization of \$938) (Schedule 1)	24,062
Goodwill	<u>50,000</u>
Total intangibles	<u><u>\$89,062</u></u>
<u>Schedule 1</u> Calculation of Copyright	
Cost of Copyright at date of purchase	\$25,000
Amortization of Copyright for 2014, 2015 [\$25,000 ÷ 40) X 1.5 years]	<u>(938)</u>
Book value of copyright at December 31	<u><u>\$24,062</u></u>
(c)	
Loss on Impairment (Goodwill).....	13,000
Loss on Impairment- Trade Names	7,000
Acc Impairment Losses (Goodwill)	13,000
Acc Impairment Losses- Trade Names	7,000

Calculations follow in Schedule 2

PROBLEM 12-7 (Continued)**Schedule 2****Indefinite-life intangibles and goodwill:**

	Carrying value	Fair value	Impairment
Trade Name	15,000	8,000	7,000
Reporting Unit:	450,000		
Goodwill	(7,000)		
	\$443,000	430,000	13,000

Limited-life intangibles:

	Carrying value	Undiscounted cash flows
Copyright	23,438	30,000
	(\$25,000 - [\$25,000 / 40 years * 2.5 years])	
No impairment		

PROBLEM 12-8

	Carrying amount	Recoverable Amount (higher of VIU or FV-SC)	Impairment
Trade Name	15,000	7,500	7,500
Copyright	23,438	27,000	0
Cash generating unit to which Goodwill was allocated	450,000 <u>(7,500)</u> 442,500	440,000	2,500

The impairment test for the identifiable assets would be performed first, and then the carrying amount of the CGU would be compared to its recoverable amount. The result, if the carrying amount > the recoverable amount, would be the impairment loss – first assigned to goodwill with any remainder then allocated among the other assets on a relative book value basis.

Loss on Impairment (Goodwill).....	2,500	
Loss on Impairment - Trade Names	7,500	
 Acc Impairment Losses (Goodwill)		2,500
 Acc Impairment Losses- Trade Names ...		7,500

PROBLEM 12-9

1. (i) The trade name has a remaining legal life of 16 years and can be renewed at a reasonable cost. There appears to be reasonable assurance that the economic benefits of the trade name will continue indefinitely because positive cash flows can be identified for 25 years and are expected to continue. Accordingly, the asset would not be amortized. It would be tested for impairment at least on an annual basis (or more often if circumstances dictate).
- (ii) The useful life to the enterprise is three years, so the trade name should be checked for the need for amortization over the three year period. Any amortization would be based on the cost of the trade name less any residual value. The residual value, usually assumed to be zero for intangibles, is expected in this case to be substantial – the trade name will continue to have value and a useful life to another enterprise. Phelps expects to have no problem in selling the subsidiary at the end of the three years. If Phelps determines that the residual value after 3 years is equal to or greater than its cost to Phelps, no amortization would be necessary.

The trade name would be tested for impairment if conditions indicate that the estimated future net cash flow may be less than its carrying amount. These conditions would include, for example: a loss from operation of the asset; negative cash flows from the asset; changes in external economic conditions; a substantial decline in the market for the product; and a decline in net realizable value of the asset below the net carrying amount.

PROBLEM 12-9 (Continued)

- 2. The licence has a legal life of 5 years and can be renewed indefinitely at a reasonable cost. There appears to be reasonable assurance that the economic benefits of the licence will continue indefinitely because it is expected to generate positive cash flows indefinitely. Accordingly, the asset would not be amortized. It would be tested for impairment at least on an annual basis (or more often if circumstances dictate).**

- 3. The magazine subscription list should be amortized over its estimated useful life of 25 years. An indefinite useful life was not selected in this case due to the nature of the intangible asset. Although Phelp may intend to add customer names and other information to the list in the future, the expected benefits of the acquired subscription list apply only to the customers on that list at the date of acquisition. The magazine subscription list would be tested for impairment if conditions indicate that the estimated future net cash flows may be less than its carrying amount, caused by, for example, a substantial decline in the market for the product.**

- 4. The non-competition covenant should be amortized over its estimated useful life of 25 years. An indefinite useful life was not selected in this case since the projected cash flows are expected to continue for 25 years but there is no mention of usefulness beyond this point. The non-competition covenant would be tested for impairment if conditions indicate that the estimated future net cash flows may be less than its carrying amount, caused by, for example, a substantial decline in the market for the product, making the non-competition covenant irrelevant.**

PROBLEM 12-9 (Continued)

- 5. The medical files should be amortized over its estimated useful life. An indefinite useful life was not selected in this case due to the nature of the intangible asset. The issue is similar to the magazine subscription list in that although Phelp may intend to add clients to the list in the future, the expected benefits of the acquired medical files apply only to the clients on that list at the date of acquisition. An estimate of useful life could be determined based on the average life expectancy and retention of the clients. The medical files would be tested for impairment if conditions indicate that the estimated future net cash flow may be less than its carrying amount, caused by, for example, a loss of clients from the purchased practice.**

- 6. The favourable lease should be amortized over 35 years. The useful life could be reduced by factors such as lease contract provisions owing to Phelp being a sub-lessee; Phelp's intended period of lease of the warehouse; and, the effect of economic factors on rentals in the area. The favourable lease would be tested for impairment if conditions indicate that the estimated future net cash flow may be less than its carrying amount, caused by, for example, decreases in area rental rates.**

PROBLEM 12-10

(a)	Fair value of consideration transferred	\$2,000,000
	Less fair value of identifiable net assets	<u>1,700,000</u>
	Goodwill	<u>\$300,000</u>

(b) The fair value of Lubello Division of \$1,850,000 exceeds the carrying amount of the Division including goodwill of \$1,628,500. As a result, no impairment loss is recognized.

(c) The carrying amount of the Division including goodwill of \$1,628,500 exceeds its fair value of \$1,500,000, therefore goodwill is considered impaired by \$128,500.

(d)	Loss on Impairment (Goodwill)	128,500	
	Acc. Impairment Losses (Goodwill)		128,500

The loss would be reported separately in the income statement before taxes and discontinued operations.

(e) Under IFRS, goodwill is allocated to a cash-generating unit (CGU), and the CGU is tested for impairment annually and whenever circumstances indicate the CGU may be impaired. Impairment loss, if any, is calculated as the excess of the CGU's carrying amount over its recoverable amount (higher of VIU and FV-SC). Any impairment loss is first allocated to goodwill and then to other assets in the CGU on a proportional basis. Reversal of goodwill impairment loss is not permitted.

PROBLEM 12-11

a) Goodwill calculation

Fair value of consideration transferred		\$763,000
Fair value of assets	\$1,080,000	
Fair value of liabilities	<u>430,000</u>	
Fair value of net assets		<u>650,000</u>
Value assigned to goodwill		<u>\$113,000</u>

- b) The recoverable amount of the CGU is compared with the carrying amount of the CGU to determine if there is any impairment.

Based on the information provided, the recoverable amount is the higher of:

- FV – selling costs = \$4,250,000
- VIU = \$3,850,000

Recoverable amount of CGU	4,250,000
Carrying value of CGU	4,613,000
Impairment loss	363,000

The impairment loss of \$363,000 exceeds the amount of goodwill. Therefore, the impairment loss should be allocated to reduce the CGU's carrying amount in the following order: first to goodwill, then the remainder to the other assets in the CGU on a proportionate basis, based on relative carrying amount.

PROBLEM 12-11 (Continued)

After recording the impairment loss, the CGU's carrying amount will be as follows:

	Plant A CGU carrying amount	Impairment loss	Adjusted carrying amount
Assets (Other than goodwill)	\$4,500,000	(250,000)	\$4,250,000
Goodwill	113,000	(113,000)	0
Total carrying amount of CGU	\$4,613,000	(363,000)	\$4,250,000

c) If there is a subsequent reversal of impairment, the goodwill impairment loss cannot be reversed; any future reversal will be limited to the writedown of the other assets (\$250,000).

***PROBLEM 12-12**

(a)	Net assets at current value	
	Current assets (\$125,000 + \$40,000)	\$165,000
	FV-NI investments (\$55,000 + \$20,000)	75,000
	Buildings (net)	405,000
	Current liabilities	(85,000)
	Notes payable	<u>(105,000)</u>
	Net assets	455,000
		<u> X 15%</u>
	Normal earnings	<u>\$68,250</u>

Project net income

Base for 2014: \$110,000	
2015 (\$110,000 X 1.15)	126,500
2016 (\$126,500 X 1.15)	145,475
2017 (\$145,475 X 1.15)	167,296
2018 (\$167,296 X 1.15)	<u>192,390</u>

$$\$631,661 \div 4 = \underline{\underline{\$157,915}}$$

1. Average earnings next four years	\$157,915
Normal earnings	<u>(68,250)</u>
Excess earnings	<u>\$ 89,665</u>

$$\$89,665 \times 4 = \$358,660$$

$$\$358,660 + \$455,000 \text{ (net assets)} = \$813,660$$

2. $\$89,665 \div 30\% = \$298,883$

$$\$298,883 + \$455,000 \text{ (net assets)} = \$753,883$$

3. $\$89,665 \times 2.85498^* = \$255,992$

$$\$255,992 + \$455,000 \text{ net assets} = \$710,992$$

*PV annuity factor, n=4, i=15

4. $\$89,665 \div 16\% = \$560,406$

$$\$560,406 + \$455,000 \text{ (net assets)} = \$1,015,406$$

***PROBLEM 12-12 (Continued)**

- (b) Since the value of the company is estimated to be between \$710,992 and \$1,015,406, Yardon Appraisal should likely advise Macho not to purchase De Fuentes, Inc. for this price since three of the estimates result in a value for the business that is under \$1,000,000; the fourth estimate is just slightly above the asking price of \$1,000,000.
- (c) The entry on Macho's books would be:

Current Assets	165,000	
Fair Value-Net Income Investments	75,000	
Buildings	405,000	
Goodwill	395,000	
Current Liabilities		85,000
Notes Payable		105,000
Cash		850,000

*PROBLEM 12-13

(a) **Balloon Bunch Corporation**
Calculation of Goodwill and Purchase Price
As of December 31, 2014

	Goodwill
1. <u>Excess Earnings Approach:</u>	
Earnings for past 5 years	<u>\$350,000</u>
Average Earnings (\$350,000/5)	\$ 70,000
Normal Earnings (\$400,000 X .15)	<u>(60,000)</u>
Excess Annual Earnings	<u>\$ 10,000</u>
Excess Earnings Capitalized (Goodwill)	
@ 20% (\$10,000/.20)	<u>\$ 50,000</u>

Purchase Price = \$50,000 + \$400,000 = \$450,000

2. <u>Number of Years Method:</u>	
Excess Annual Earnings	\$ 10,000
Number of Years Estimated to Continue	<u>6</u>
Goodwill	<u>\$ 60,000</u>

Purchase Price = \$60,000 + \$400,000 = \$460,000

PROBLEM 12-13 (Continued)**3. Times Average Earnings:**

Average Yearly Earnings	\$ 70,000
Number of Times Paid-Similar Companies	<u>5</u>
Total Value of Company	\$350,000
Less: Fair Value of Net Assets	<u>(400,000)</u>
Negative goodwill	<u>\$ (50,000)</u>

**Purchase price = (\$50,000) + \$400,000 =
\$350,000.**

***PROBLEM 12-13 (Continued)**

(b) Dear Ms. Lima:

I have analyzed the information you provided me on Balloon Bunch Corporation and have compiled information to help you decide how much to offer the sellers. The analysis includes calculations of goodwill.

Goodwill is an intangible asset that represents the excess of the purchase price paid for a company over the fair value of the identifiable assets (net of liabilities) in an arm's-length transaction. Goodwill arises because a company has better-than-average earnings, a good reputation, an excellent management team, effective advertising, and other qualities that make a buyer willing to spend more than the fair value of the identifiable net assets to acquire the company.

There are several ways to calculate goodwill for a company. I have prepared the attached Calculation of Goodwill and Purchase Price to demonstrate three ways to calculate Balloon Bunch's goodwill. The first is the excess earnings approach. Excess earnings are defined as the difference between the average earnings of the corporation and the industry's average earnings for the same net assets. Under this approach, you average the company's past net earnings to find average annual earnings of \$70,000.

Companies in the balloon industry average a 15 percent rate of return on their net assets. If Balloon Bunch averaged 15 percent on its net assets, its normal earnings would be \$60,000. Therefore, Balloon Bunch earns \$10,000 per year more than similar competitors. Based on current economic conditions, fluctuations in annual earnings, and other considerations, excess earnings should be capitalized at a conservative 20 percent rate. This indicates that the goodwill would be \$50,000.

***PROBLEM 12-13 (Continued)**

A second method to determine goodwill is to apply the Number of Years Method. A simpler calculation, this method multiplies the excess earnings times the number of years it is believed the excess earnings will continue. Based on information you supplied me, we assumed the excess earnings will continue for six more years. Under this method, the value of the goodwill is \$60,000.

A third method to examine is the Times Average Earnings. In this method, you multiply the average earnings by the number of years appropriate for sales of other companies in the same industry. After researching this, I discovered that the Happy Balloon Corporation (a very similar competitor) recently sold for five times its annual earnings. Five times Balloon Bunch's annual income is \$350,000, less the \$400,000 fair value of the assets, equals negative goodwill of \$50,000.

This negative goodwill represents a bargain purchase since the fair value of Balloon's net assets is greater than the \$350,000 purchase price. Before acting on this method, I would like to re-examine the fair value of Balloons net assets and consider whether there might be a reason why Happy Balloon Corporation sold for five times annual earnings, rather than something more.

Based on the calculations we made, the Balloon Bunch Corporation is worth somewhere between \$350,000 and \$460,000. Everything that you pay over \$400,000 will be considered goodwill and will be subject to testing for impairment on an annual basis, or on an interim basis, if circumstances dictate. Any amount you pay less than \$400,000 will be recognized as a gain in net income in the same period that the purchase takes place. Any subsequent impairment in value will be recorded as a loss on the income statement.

***PROBLEM 12-13 (Continued)**

I hope this information will help you make a wise decision.

Sincerely yours,

My Name, Accountant

CASES-Chapter 12

See the Case Primer on the Student Website as well as the summary case primer in the front of the text.

INTEGRATED CASES

IC 12-1 MORROW MEDICAL (MM)

Overview

- Given that the purchase price is based on 5 times net income, management (Dr. Morrow) has a bias to inflate 2013 net income to ensure the greatest return from the sale of MM, whereas the potential buyer has the opposite incentive.
- Company is experiencing cash flow problems – may be a signal that MM is having other problems. Need to further investigate as may be signal of problems with operations or AR collection – could put pressure on company to further bias the numbers to make it look better.
- GAAP is a constraint given that the company interested in buying MM will want financial statements that abide by GAAP, and as auditors, we will need to follow GAAP when we provide our audit opinion. This could be ASPE or IFRS – there is a choice. Unless noted, the GAAPs would be similar for the issues discussed in this case.
- Overall – given our role as auditors we must be careful to ensure that the company is fairly valued to ensure our client is not overpaying for MM. Net income figure is our biggest concern. Conservative approach.

IC 12-1 (Continued)**Analysis and recommendations:**

Issue: Revenue recognition – delivery of extra surgical gloves

Recognize sale of gloves	Do not recognize sales
<ul style="list-style-type: none"> - Given gloves have been shipped to hospitals, risks and reward have been transferred. - Given MM is dealing with hospitals, there is little concern over collectibility. - Given Dr. Morrow's experience as a surgeon, he has experience with turnover related to the gloves. His logic that hospitals will run out of gloves is realistic and thus the sale is measurable. - It is likely that the hospitals will keep all the extra inventory given the hassle of returning the inventory after 8 months. 	<ul style="list-style-type: none"> - Measurement is not estimable given that MM is unsure exactly which hospitals and how many surgical gloves will be returned after the 8-month period. - Hospitals should only be charged for what they ordered – all these extra gloves were not part of the original order and thus should not be recorded as revenue. - Hospitals likely to pay for their orders, but extra inventory was not ordered and collection in doubtful. - First year of the launch of the surgical gloves – returns etc. – are not easy to estimate – if a reasonable estimate could be made then recognition would be possible. - Extra gloves that have been shipped are not the legal responsibility of the customers and as a result include a full right to return goods.

Given that hospitals did not order the extra gloves, a sale should not be recorded for the extra gloves. Dr. Morrow has an incentive to inflate earnings to his advantage. As a result, removing these sales will reduce net income thus reducing the purchase price.

If there is evidence of an estimate of sales returns, recognition of a sale may be possible, however, given our role as auditors for the acquiring company, we need to ensure evidence is reliable.

IC 12-1 (Continued)

Issue: Research & development of MM Surgical Drill

Capitalize	Expense
<ul style="list-style-type: none"> - Product is clearly defined = MM Surgical Drill. Cost can be identified (this appears to be the only product in the R&D stage). - Product is technically feasible – potential buyer is extremely interested in this product - Dr. Morrow’s experience as a surgeon and the fact this project has been in the works since 2010 support this. - Management has intention to produce and market this product – it has been in the works since 2010. If the company is sold, the potential buyer is interested in the MM surgical drill and thus can assume they intend to complete and market it. - MM has technical resources available to complete this project and testing to date has been successful which supports future life and market for product. - Given potential buyers interested – there is a market for this product. - Management intention to bring the product to market in 2015. - Market established – given various market surveys conducted in hospitals throughout Ontario. 	<ul style="list-style-type: none"> - MM is experiencing cash flow problems and thus, there is an issue over adequacy of resources. - Sale of MM is not certain and thus, basing adequacy of resources on sale of MM is questionable.

ASPE allows a choice of either whereas IFRS requires capitalization if stringent criteria are met. Given that the drill meets the criteria for deferral, the costs should be deferred and amortized once the product is in production and sale. Given that the drill represents an asset, it is not unreasonable to capitalize the costs.

IC 12-1 (Continued)

Issue: Which items qualify for deferral?

Deferral	Expensing
<ul style="list-style-type: none"> - Testing to evaluate product alternatives (\$12K). - Design of the moulds. - Testing of surgical drill evaluation (100K). - Cost of setting up production lab (\$30K) as long as related to drill (may also be treated as a capital asset). 	<ul style="list-style-type: none"> - Marketing and production costs given they relate to surgical gloves not to the drill. - Additional \$25K of tool design costs given already expensed – can't reverse prior year expense.

Dr. Morrow must expense the amounts that do not qualify for development. The GAAPs are similar in this regard.

Issue: Contingent liability

Recognize Loss
<ul style="list-style-type: none"> - Measurable since MM's lawyers have an estimate of settlement and by implication, the payout is likely. As long as the estimate is reasonable and the future event – settlement of the lawsuit, which is likely – the contingent loss should be accrued by a charge to income. The additional potential contingent liability amount should be disclosed. - ASPE requires recognition of the low end of the range where all amounts in the range are equally probable. - IFRS requires expensing of the best estimate of the payout (expected value). This would be higher than the \$100,000.

It would make the most sense to recognize the expected value.

Overall – following IFRS would provide the best estimate of the economic income.

IC 12-2

Overview

- BI is a new company with a complicated business model – they take CO₂ from their customers and convert it to biofuel. In order to do this, they must build a pipeline and pond on customer land. They then sell the biofuel back to their customers.
- The company is private and the bank has asked for audited statement – therefore may use IFRS or ASPE (first year). Bank will focus on impact on debt to equity ratio (<3:1). ASPE is more flexible (cost versus benefit). Differences are identified and noted below.
- As the accountant – will want to be transparent to the complex business model yet show the company in the best light to the bank as they need ongoing financing.

Analysis and recommendation

Initial contribution of prototype to company- non-monetary and related party

Exchange value	Carrying value
<ul style="list-style-type: none"> - As a non-monetary transaction, the exchange value is not obvious - Fair value is estimated at \$500,000 – would need evidence to support - Although not in normal course of business – okay as long as evidence to support value as clearly this transaction has commercial substance (prototype for common shares) - May argue that this is an acquired asset (i.e. the company acquired it and so not internally generated) - IFRS does not give specific guidance for valuing non-financial assets - Would positively affect debt to equity and be more transparent as this is the most significant asset the company has 	<ul style="list-style-type: none"> - If cannot substantiate the fair value – may default to carrying value (costs incurred to create) - Which costs to include – i.e. this could be seen as an internally generated intangible asset (research stage) so may be minimal costs included

Conclude and why – likely unable to measure (unless company can get additional evidence to support Sarah's estimate) so would have to ensure properly disclosed.

IC 12-2 (Continued)

Development costs – re prototype – once contributed

Capitalize	Expense
<ul style="list-style-type: none"> - Clearly future benefit as there is an established market (customers already buying the algae), funding is available through the bank, costs are estimable 	<ul style="list-style-type: none"> - Not sure whether the costs are development (versus research) nor when transferred – whether a market exists - ASPE allows choice to expense even if criteria met

Conclude and why – may need more information but more transparent if recognized on the balance sheet as this is a major asset.

Recognize the pipeline/pond?

Yes	No
<ul style="list-style-type: none"> - Business model is to get financing from the bank and build these assets which are owned by BI in order to generate revenues - Use the assets to generate revenues (produce algae) 	<ul style="list-style-type: none"> - Assets are on customer's land – access/control? - BI provides construction services to concrete manufacturers and build assets for them - BI paid when biofuel shipped (biofuel priced such that it includes recovery of these costs)

Conclude and why – recognize since legally owned by the company.

Recognize revenues

Rec revenues when biofuel delivered	Rec revenues as construction services provided
<ul style="list-style-type: none"> - Revenues earned as biofuel shipped and not before (legal title and possession) 	<ul style="list-style-type: none"> - This is really a bundled sale including the services and provision of the biofuel - Must add all revenues together and bifurcate

Conclude and why – if we assume that the pond belongs to BI – then treat as revenue when biofuel delivered to the customer.

Construction costs on pond/pipeline

Capitalize	Expense
<ul style="list-style-type: none"> - Any costs such as interest, material, labour required to get the assets ready for use - ASPE allow choice for interest 	<ul style="list-style-type: none"> - Costs such as interest are really financing costs and therefore ordinary and ongoing

IC 12-2 (Continued)

Conclude and why – capitalization would allow for an appreciation of the full cost to provide the revenue stream.

Other

- IFRS allows choice to value PP&E at fair value using the revaluation method
- May incur asset retirement obligation costs since assets on customer land and may have to restore at end of life (IFRS based on constructive obligation versus legal)
- Algae may be seen as biological asset and therefore value at fair value less costs to sell (ASPE has no guidance)
- Should the CO₂ be recognized as inventory when piped into the pond?
Difficult to measure
- Other

TIME AND PURPOSE OF WRITING ASSIGNMENTS

WA 12-1 (Time 20-25 minutes)

Purpose— to provide students with the opportunity to discuss how intangibles should be valued on a business acquisition, and the implications on net earnings subsequent to the acquisition date. Intangibles that are addressed are customer relationships, a trademark, a non-compete agreement and goodwill. Also students are to discuss impairment testing under IFRS and private entity GAAP..

WA 12-2 (Time 15-20 minutes)

Purpose – to provide the student with the opportunity to discuss the Implications of accounting for web site design costs when the company develops a web for their own use. Students are to refer to SIC 32 and IAS 38 in deciding how the specific costs should be reported.

WA 12-3 (Time 25-30 minutes)

Purpose—to present an opportunity for the student to discuss accounting for patents from a theoretical and a practical viewpoint. The student is required to explain the “discounted value of expected net receipts” method of accounting for patents and to provide support for using cost as the generally accepted valuation method. The student is also required to comment on treatment of patents under IFRS and private entity GAAP. Finally the student must determine proper disclosure in the financial statements for a patent infringement suit which is in progress at the balance sheet date..

WA 12-4 (Time 20-25 minutes)

Purpose—to provide the student with an opportunity to discuss the nature of goodwill and the propriety of recognizing internally generated goodwill in the accounts. The student is required to define goodwill and to indicate reasons why the book and market values of goodwill may differ. Finally, the student must discuss the propriety of eliminating goodwill from the accounts or increasing its book value to reflect market value.

TIME AND PURPOSE OF WRITING ASSIGNMENTS (CONTINUED)

WA 12-5 (Time 25-30 minutes)

Purpose—to provide the student with an opportunity to discuss the reporting of different types acquired intangibles. Examples from the Appendix of IAS 38 are used and the students must discuss the suggested accounting treatment and support the recommendation by applying the general principles of IAS 38.

WA 12-6 (Time 20 minutes)

Purpose—to provide the student with the opportunity to compare IFRS and accounting standards for private enterprises.

SOLUTIONS TO WRITING ASSIGNMENTS

WA 12-1

The first step is to determine the purchase price that has to be allocated. In this case, the fair value of the consideration given up is the cash of \$10 million plus the \$5 million to be paid in one year discounted back one year at a rate of 6%. The total consideration then is \$10 million + \$5 million / (1.06), which totals \$14.72 million.

The next step is to identify all the tangible and intangible assets that have been purchased and determine their fair value at the date of purchase. Generally for intangible assets, the fair values are determined using one of the two methods: an income approach which discounts future cash flows the asset is expected to generate; and the market based approach which looks at what one would have to pay to acquire a similar asset in the market. The following is a list of the intangible assets, and how fair values might be determined:

- Trademark – the value of the trademark is usually determined by discounting the value of royalties that the company would have paid to use the trademark. This is known as the relief from royalty method. The controller should research the market to determine what it would have cost the company in royalty fees for a similar trademark, estimate the number of years the fees would have been paid, and then discount using an appropriate rate. In subsequent years, this trademark will be amortized over the lesser of its legal life or useful life. Although currently, there are only 6 years remaining, this life can be extended indefinitely by paying a small fee. Likely the company will want to continue to maintain the trademark rights, and this will result in unlimited legal life. However, the benefit of this trademark could also be determined to be finite. The controller will have to decide if the trademark is to be amortized over some period of time, or will it have an indefinite life and be tested annually for impairment. Assuming that the controller assumes an indefinite life, there will be no amortization on an ongoing basis, but an impairment loss will result when the recoverable amount (being the higher of fair value less costs to sell and value in use) drops below the carrying value. Under IFRS, this impairment test will be performed annually.

WA 12-1 (Continued)

- Customer relationships – The value of existing customer relationships will depend on the future cash flows from net profits (sales less cost of sales, less asset charges and other costs required to generate the sales) and how long the customer stays with Kolber. These future cash flows are estimated and then discounted to arrive at a value. Existing sales contracts are not required for these relationships to still have value. This asset will be amortized over the period of time each customer will continue to buy products. The controller will probably have estimated this time frame already in determining the future cash flows. Consequently, an amortization expense will be charged annually. Under IFRS, this account will also be tested annually for impairment. The recoverable amount, being the higher of the fair value less costs to sell and the value in use, will be compared to the carrying amount at every reporting date. If the recoverable amount falls below the carrying amount, then an impairment loss will be recorded and the asset written down to the recoverable amount. However, in subsequent years, the impairment loss may be wholly or partially reversed if the inputs into the recoverable amount change.
- Non-compete agreement – The value of the non-compete agreement with the owners is determined by comparing the difference in net cash flows that would be realized by the company with and without the non-compete agreement. One other assumption that might be made is how likely is it that the owners would actually try to compete or would they be interested in some other pursuit. This asset will also be amortized over five years on some basis (e.g., straight line), and the related amortization expense will be charged to the income statement. Under IFRS, this account will be tested annually for impairment. The recoverable amount, being the higher of the fair value less costs to sell and the value in use, will be compared to the carrying amount at every reporting date. If the recoverable amount falls below the carrying amount, then an impairment loss will be recorded and the asset written down to the recoverable amount. However, in subsequent years, the impairment loss may be wholly or partially reversed if the inputs into the recoverable amount change.
- Goodwill – goodwill is by definition, the difference between the fair value of the consideration given up, which is \$14.72 million, less the fair values attributed to the tangible assets, the liabilities, and the three identified intangibles above. Goodwill is not amortized but is tested annually for impairment. Under IFRS, the carrying value of the cash generating unit (CGU) to which the goodwill belongs (which in this case would likely be this manufacturing plant) is compared to the recoverable amount of the CGU (equal to the higher of the fair value less costs to sell and value in use). If the recoverable amount is less than the carrying amount, then the goodwill is written down by the difference. (If the difference is greater than

WA 12-1 (Continued)

the goodwill, then any remaining amount would be prorated to the other assets of the CGU based on their relative carrying amounts.)

Under ASPE, the testing of impairment of goodwill is only performed when there are circumstances or events that indicate a possible impairment. If the fair value of the reporting unit (again in this case, probably the manufacturing facility) is less than the carrying value of the reporting unit, then the goodwill is written down by the difference.

WA 12-2

A company's web site could qualify as an intangible asset if it meets the two criteria required by IAS 38.21: it is probable that expected future economic benefits attributable to the asset will flow to Weaver, and the costs can be reliably measured. Certainly the costs can be reasonably measured. However, only the part of the web site that is used by customers to place orders will generate any future economic benefits for the company. The other part of the site that is used for marketing and advertising material will not directly generate future benefits and any related costs will be immediately expensed.

For the customer order site costs, these can be capitalized only once the development stage has been reached. Costs incurred during the research phase must be expensed. Once Weaver can demonstrate the six criteria required by IAS 38.57 have been met, costs incurred during the development stage can be capitalized. The analyses of these six criteria with respect to Weaver's customer order site are as follows:

- (a) Technical feasibility so it is available for use – the testing by the software developers has shown this to be true.
- (b) Weaver's intention to complete and use it – the Board of Directors has approved the plan and budget for this web site to be completed.
- (c) Weaver's ability to use the web site – this has been demonstrated by testing of the site.
- (d) How the asset will generate future economic benefits – customers will now use the site to place their orders which will generate direct revenues for the company.
- (e) Availability of technical, financial and other resources to complete the development – The Board has approved the budget for the site, and the company has hired on the specialists required to develop the site.
- (f) Ability to measure the costs attributable – the costs are being tracked separately and managed by the IT manager.

The following is how each of the costs incurred will be reported by Weaver and the supporting reasons:

- the IT manager's salary for the six months required to supervise the project – these costs for management salaries would be considered administrative costs and are specifically excluded from capitalization under IAS 38;
- legal fees to register the domain name – are part of the development phase and could be capitalized;
- consulting costs for a feasibility study – this is part of the research phase and will be expensed;

WA 12-2 (Continued)

- purchase of the hardware - is equipment and will be capitalized and amortized under IAS 16;
- software developers to develop the code for the application, installation and testing of the software – this represents part of the development phase and only the costs related to the customer order site will be capitalized; costs related to the marketing site will be expensed;
- graphical artist to design the layout and colour for the web pages - this represents part of the development phase and only the costs related to the customer order site will be capitalized; costs related to the marketing site will be expensed;
- photographers to take pictures of the products to be shown on the site – these costs are related to the marketing of the product and are immediately expensed;
- staff costs to upload all the information to the site pertaining to company description and products – these costs relate to marketing and are expensed;
- staff time to upload all the information to the site pertaining to the data required for customers to make orders including prices, entry data screens and shipping options – these costs are part of the development phase and will be capitalized;
- Training costs for the employees on using the software – these costs are specifically excluded from capitalization under IAS 38.

Once the web site is operational, ongoing costs to update prices and content, add new functions, and back up the data will be expensed. The web site must also be amortized over its useful life. Due to the fact that technology and software rapidly change, the website will be susceptible to technological obsolescence. SIC 32 suggests that this useful life will be short (one to three years).

WA 12-3

- (a) A dollar to be received in the future is worth less than a dollar received today because of an interest or discount factor—often referred to as the time value of money. The discounted value of the expected royalty receipts can be thought of either in terms of the present value of an annuity of royalty receipts; or in terms of the sum of the present values of several years' individual royalty receipts .
- (b) If the royalty receipts are expected to occur at regular intervals and the amounts are to be fairly constant, their discounted value can be calculated by multiplying the value of one such receipt by the present value of an annuity of 1 for the number of periods the receipts are expected. On the other hand, if receipts are expected to be irregular in amount or if they are to occur at irregular intervals, each expected future receipt would have to be multiplied by the present value of 1 for the number of periods of delay expected. In each case, some interest rate (discount factor) per period must be assumed and used. As an example, if receipts of \$10,000 are expected each six months over the next ten years and an 8% annual interest rate is selected, the present value of the twenty \$10,000 payments is equal to \$10,000 times the present value of an annuity of 1 for 20 periods at 4%. Twice as many periods as years and half the annual interest rate of 8% are used because the payments are expected at semi-annual intervals. Thus the discounted (present) value of these receipts is \$135,903 (\$10,000 X 13.5903). Because of the interest rate, this discounted value is considerably less than the total expected collection of \$200,000. Continuing the example, if instead it is expected that \$10,000 will be received six months hence, \$20,000 one year from now, and a terminal payment of \$15,000 is expected 18 months hence, the calculation is as follows:

\$10,000 X present value of 1 at 4% for 1 period = \$10,000 X .96154 = \$9,615.

\$20,000 X present value of 1 at 4% for 2 periods = \$20,000 X .92456 = \$18,491.

\$15,000 X present value of 1 at 4% for 3 periods = \$15,000 X .88900 = \$13,335.

Adding the results of these three calculations yields a total of \$41,441 (rounded), considerably less than the \$45,000 total collections, again due to the discount factor.

WA 12-3 (Continued)

(c) Evidently the cartons were developed and the patents obtained directly by Bearcat Limited. ASPE allows a choice as to whether to expense these development costs or capitalize the costs if certain criteria are met. IFRS requires the costs to be capitalized if certain criteria are met. The criteria under ASPE and IFRS are the same with respect to when internal expenses can be capitalized. The basis of valuation for patents that is generally accepted in accounting is cost. These products have been on sale for the past three years, prior to which the company would have incurred research and development costs. Only directly attributable costs incurred in the development phase could have been capitalized in previous years, and capitalization could not have commenced until all six criteria for recognition were demonstrated. These six criteria include: technical feasibility, entity's intentions to sell the or use the asset, entity's ability to use or sell the asset, availability of resources to use or sell, how future benefits will be received, and the ability to measure the costs associated with the development of the asset. It is likely that these costs were all expensed at the time. Once the patent is registered, the fees paid for this registration can be capitalized. In addition, any legal costs required to successfully defend a patent infringement suit could also be capitalized. Amortization of the patent would be over the shorter of its legal life (20 years) or its useful life to the entity. Events that could shorten the useful life of the patent would include: no more licensing fees being generated or a new process has been developed for the production of the containers. Amortization can either be based on time (straight-line basis) or over a certain number of units produced.

Subsequent to capitalization, the patent needs to be tested for impairment. Under ASPE this is done when events or circumstances indicate that carrying value may be less than the recoverable amount. The cost recovery method is used, whereby the first step is to determine whether or not the total future cash flows to be generated from the patent are less than its carrying value. If this is the case, then the patent will be written down to its fair value (discounted cash flows) if it is less than its current carrying value.

Under IFRS, the impairment is tested annually using the rational entity impairment model. The carrying value is compared to the higher of the fair value less costs to sell or the value in use. If the carrying value is lower than this recoverable amount, then the asset is written down to the recoverable amount. In subsequent years, the impairment loss could be partially reversed if the estimates used to determine the recoverable amounts have changed.

WA 12-3 (Continued)

As noted earlier, if the infringement suit is successful, the attorney's fees and other costs of protecting the patent should be capitalized and amortized over its remaining useful or legal life, whichever is shorter. However, if the suit is unsuccessful, this will impact the impairment test for both ASPE and IFRS. It may be that the recoverable amounts under both standards become less than the carrying value. Any legal and other costs incurred if the suit is lost would be expensed immediately.

- (d) The value suggested by the financial VP is a fair value. IFRS does allow a choice for some intangible assets to be valued using the cost model or the revaluation model. However, the revaluation model is only available for intangible assets that have an active market and the fair value can be determined using these quoted market prices. In this case, the patents are unique and do not have quoted market prices. Consequently, the cost model must be used as explained earlier.
- (e) The litigation can and should be mentioned in the notes to the financial statements. Some indication of the expectations of legal counsel in respect to the outcome can properly accompany the statements. It would be inappropriate to record a contingent asset reflecting the expected damages to be recovered. Costs incurred to September 30, 2014, in connection with the litigation could be recorded as prepaid until the outcome is determined. However, the conventional treatment would be to charge these costs as ordinary legal expenses. If the final outcome of the litigation is successful, the costs of prosecuting it could then be capitalized. Similarly, if the client were the successful defendant in an infringement suit on these patents, the generally accepted accounting practice would be to add the costs of the legal defence to the Patents account.

Developments between the balance sheet date and the date that the financial statements are authorized for issue are assessed to determine if these events are adjusting events or non-adjusting events (IAS 10). If the case is settled during this period, then this represents an adjusting event and an adjustment would be made to the financial statements to reflect this settlement.

WA 12-4

- (a) Goodwill in accounting is “an asset representing the future economic benefits arising from other assets acquired in a business combination that are not individually identified and separately recognized” (IFRS 3, Appendix A). It is the difference between the fair value of the consideration given up to acquire a business and the fair value of all the identifiable net assets acquired.
- (b) The book and market values of the goodwill of Echo Corp. differ because of changes in conditions since the date of acquisition. Only purchased goodwill can actually be recorded. Goodwill that is internally generated is not capitalized. One reason for this is that it is difficult to isolate the costs directly attributable to goodwill increases. In fact, there may, in some cases, be no outside expenditures. A second reason is that one cannot be certain that the conditions out of which goodwill arises will continue to exist in the future and therefore that future economic benefits will be received by the company and attributable to the goodwill. Since the date of acquisition, conditions have improved and along with them the market value (but not the book value) of goodwill. For example, sales volume has increased and the market demand is generally more favourable. The interest of investors also may have increased with the growth rate in sales by Echo Corp. Inflation, too, may have had some effect on the market value of goodwill, but its effect should be eliminated since general changes in the price level represent only a change in the value of the monetary unit.
- (c) 1. It is not acceptable practice to enter goodwill on the books unless it is purchased; therefore, it would not be proper to increase the stated value of goodwill and violate the historical cost principle. In addition, this should have no effect on the amount paid for goodwill by the competitor. The competitor will set the price based on future cash flows and earnings of the company and current net asset values, and not what is presented on the historical cost balance sheet.
2. This would also be improper. The value of the goodwill may have increased (as would be evidenced by the negotiated purchase price), although such increase in value would not be included in the accounts. Goodwill should be eliminated from the balance sheet and a corresponding loss recognized only if the circumstances indicate that goodwill has been impaired to the point of being worthless.

WA 12-5

The illustrative examples accompanying IAS 38 outlines the suggested guidance. Students should apply the following factors in determining if the asset has a useful life that is finite (and if so, how many years) or indefinite include (IAS 38, par 90):

- expected usage by the entity;
- typical product life cycles and any public information on useful lives of similar assets used in similar ways;
- technical, technological, commercial or some other type of obsolescence;
- the stability of the industry in which the asset operates and changes in the market demand for the output of the asset
- actions that competitors might take;
- company's ability and intention to maintain a certain level of maintenance required to ensure that future benefits continue to flow to the entity;
- period of legal control over the use of the asset;
- other limits on the use of the asset such as the expiry dates of related leases
- the useful life on dependent assets; and
- the entity's ability to renew contractual or legal rights and the related costs in comparison to future benefits.

WA12-6

Generally, ASPE has been designed to reduce the complexity in recognizing intangible assets and testing the assets for impairment. In addition, unless there were strong reasons for changing policies, common practices in Canada have been maintained. Finally, the amount of note disclosure has been significantly reduced to save costs in preparing financial statements for private enterprises.

The major differences between ASPE and IFRS are as follows:

- Interest costs may or may not be capitalized for private enterprises during the development process. IFRS does not allow a choice, and mandates that interest be capitalized based on pre-defined formulas. Consequently, private enterprises following ASPE can choose to expense interest costs, which will be a simpler method, as compared to tracking the relevant interest to capitalize.
- ASPE allows development costs to be expensed or capitalized when the six specific criteria have been met. If the company chooses to expense these costs there is no need to keep track of this information. IFRS mandates that these costs be capitalized.
- In reporting periods subsequent to acquisition, only the cost model can be used under ASPE. Under IFRS, there are choices of the cost model or revaluation model for intangible assets. Determining fair values can be time-consuming, expensive and require a sophisticated level of knowledge that some private enterprises may not be able or want to afford.
- The impairment testing under ASPE is far less onerous than under IFRS. First of all, testing of impairment only needs to be done when events or circumstances indicate that the carrying amount might be impaired. (IFRS requires this to be completed at every reporting date.) Secondly, for limited life intangibles, the impairment test under ASPE has a first step to total the future cash flows generated by the asset to determine whether the asset's carrying value will be recovered. At this point, only if this test fails, must an appropriate discount rate be calculated and a fair value determined as part of the second step. This is far less complex than having to determine the fair value initially, as required under IFRS.
- The impairment testing for goodwill is also different under ASPE in comparison to IFRS. The fair value of the reporting unit is compared to its carrying value. (Under IFRS, it is a cash generating unit that is used). When the fair value is less than the carrying value, an impairment loss is recorded for the difference. The reason for using the reporting unit is to stay with Canadian practice since preparers are currently familiar with this method.

WA 12-6 (Continued)

- The final difference in accounting for impairments is that under ASPE, there is no reversal of the write down allowed. This means that the entity does not have to keep track of the write-downs by asset or the carrying costs of the assets as if they had not been written down. This type of information is required under IFRS since write ups are allowed but only to the amount the carrying value of the asset would have been if the impairment write down had not been made.
- Only basic disclosures describing the accounting policies on amortization, the balances of goodwill and classes of intangibles, and details of impairment losses are required. In contrast, IFRS requires significant disclosures including detailed reconciliations of the opening and closing balances of each type of intangible asset and goodwill, detailed information on determination of fair values and assumptions and methods used for determining impairment losses. These disclosures under IFRS are extremely time consuming and have been eliminated under ASPE.

RESEARCH AND FINANCIAL ANALYSIS

RA 12-1 British Airways Plc

- (a) British Airways reports goodwill, landing rights, emission allowances and software as intangible assets. The reported amounts in the notes were :
(all amounts in millions of British Pounds – from Note15)

	Cost	Accumulated amortization	Net book value
Goodwill	40	0	40
Landing rights	301	59	242
Emission allowances	12	0	12
Software	201	148	53

Note 2 explains the accounting policies used by the company.

Landing rights are acquired from other airlines. Those landing rights that are outside of the EU are amortized on a straight-line basis over no more than 20 years. Capitalized landing rights based within the EU are not amortized, as regulations within the EU consider them to have an indefinite economic life.

British Airways has capitalized the cost of purchase or development of software. There are no details provided on the nature of this software and how it is used by the company. It is amortized over four years on a straight-line basis. The software is tested for impairment when events or circumstances arise to indicate that carrying value is greater than the recoverable amount. (Under IFRS this should be tested at least annually.) Goodwill arises on business acquisitions and is annually tested for impairment. In anticipation of the European Emissions Trading Scheme starting on January 1, 2012, the company has purchased emission allowances that are initially recognized at cost and tested for impairment whenever indicators exist that carrying value may not be recoverable.

RA 12-1 (Continued)

- (b) From Note 15, the group outlines how the group paid £34 million for landing rights. The indefinite life intangibles are assigned to a cash generating unit for the purposes of impairment testing. In this case, £ 267 million (of a total £294 million) was allocated to a cash generating unit called “Network airline operations” and EUR 27 million was allocated to “OpenSkies”.
- (c) Note 16 outlines the details of the goodwill impairment test. Goodwill is analysed also by two cash generating units - “Network airline operations” and “OpenSkies” – the same two noted above for the landing rights. For Network airline operations, the recoverable amount was determined based on value in use using a discounted cash flow model based on the company’s five year plan which includes a planned expansion. Beyond the 5 years, the company has used a constant growth rate of UK long term growth which is 2.5% to forecast the cash flows. The company’s post-tax weighted average cost of capital adjusted for specific market risks used to discount the cash flows was 10%. Other key inputs are the operating margin of 2.9% to 8.1% and fuel price per barrel of \$114 to \$120. The total recoverable amount for the Network airline operations was determined to be £2.3 billion greater than the carrying value, resulting in no impairment loss. If the discount rate were increased by 610 basis points or the operating margin were to decrease by 44 per cent, the excess would amount to nil.

The OpenSkies’ CGU has also been measured using its value in use as the recoverable amount. Assumptions are similar to those stated above, except long term growth rates beyond the management’s five year plan are determined using the EU’s long term growth assumption – which is also 2.5%. The operating margins of (10.4%) to 4.7% have been estimated assuming that planned business efficiencies will be accomplished. The assumptions for fuel charges and discount rates are the same as above for Network airline operations. There was no impairment deemed as the recoverable amount exceeds the carrying value.

There is a very wide range used for the operating margins. In order to see how reasonable these are, the user could look historically to see what the company actually achieved. Given economic conditions, these assumptions may be reasonable. One could question whether or not planned efficiencies should be incorporated into margins, since these have not yet been achieved.

RA 12-1 (Continued)

- (d) There are a lot of assumptions that go into determining the recoverable amounts. By giving users the key assumptions that have been used, users can decide whether or not they are reasonable. Without this information, the user would have no understanding of how the values were determined and might try to guess at the assumptions used. By providing details, more credibility is given to the final numbers used. Also, the sensitivity of the numbers, and which changes in the assumptions would result in a recoverable amount equal to the carrying value are also helpful. As can be seen from above, it only takes small changes in the assumptions to reduce the value in use.

RA 12-2 Rights to use sport celebrities to advertise products.

There are several articles that can be found on this topic. (The following information was taken from “Nike Golf Extends Contract with Tiger Woods”, from Sports Business Radio, March 2006; and from Men’s Golf article, “Will Rory McIlroy Join Tiger Woods at Nike?” from October 2012.) The first deal signed with Tiger Woods was in 1996. The agreement was for five years and Nike agreed to pay a total of US\$40 million. In 2001, another five year deal was signed, this time for US\$100 million. In 2006, a new deal was signed for another five years, for at least another US\$100 million (although the actual amounts were not disclosed). In light of some of the negative publicity surrounding Tiger’s personal life in 2009 and 2010, several sponsors did not renew their endorsement deals with Tiger. However, it has been reported that Nike renewed its deal, but for a significantly lower amount (reportedly \$35 million per year). Tiger also has received a percentage of each sale of Nike Golf items including: apparel, footwear, equipment and balls.

Nike reports these endorsement expenses as part of advertising costs. Under Note 1, Demand Creation Expense, the company explains that a large amount of the promotional expenses are incurred under endorsement agreements. The accounting for these agreements is based on the specifics of the contract. Usually, the payments are expensed on a straight-line basis over the term of the contract and any prepayments under the contracts are recorded as a prepaid or other asset depending on the period the prepayment relates to. In the case of Tiger Woods, if we assume that an annual payment is made at the beginning of the year, this would be recorded initially as prepaid and then expensed on a straight-line basis over the 12 months. In addition, the “royalty” on each Nike Golf sale would be expensed as the sale is made, and an accrual owing to Tiger Woods recorded.

Under IAS 38, to qualify as an intangible asset, it must be probable that future expected benefits will flow to Nike and are directly attributable to the asset; and the cost of the asset can be measured. With hindsight, Nike might be able to attribute the increase in their Nike Golf sales directly to their agreements with Tiger Woods. However, in looking forward at the timing of the contracts, this might not be so readily determined or justified. As long as Tiger continues to do well in golf tournaments, you could argue that the endorsement likely increases sales. But what happens if Tiger should start to lose tournaments, and other players become more popular? Regardless, under IAS 38, costs related to advertising and promotion of products **cannot** be included in costs of intangible assets. As these endorsement costs are seen as promotional expenditures, they are specifically excluded under IAS 38.

RA 12-3 COMPARATIVE ANALYSIS

(a) and (b)

	Amount	Accum. Amort. Reported?	Impairment reported?	Amort. Policies
Real estate and construction				
Brookfield Asset Management	(\$ millions)			
Dec 31, 2011				
Goodwill	\$2,607	N/A	30	Test for impairment annually at least
Intangible Assets	\$3,848	242	None	Test for impairment annually or more frequently when events occur. Amortized S-L over estimated useful lives.
Intangible assets - other	120	Not disclosed	None	Test for impairment annually or more frequently when events occur Amortized S-L over estimated useful lives.
Total Assets	\$91,030			
Percentage of Total Assets	7.2%			

RA 12-3 (Continued)

	Net Amount	Accum. Amort. Reported?	Impairment reported?	Amort. Policies
Food stores – merchandising				
Loblaw Companies Limited	(\$ millions)			
Dec 31, 2011				
Goodwill	948	N/A	No	Not amortized; Tested for impairment annually
Trademarks and Brand Names	51	N/A	No	Not amortized; Tested for impairment annually
Internally generated intangible assets	20	8		Intangible assets with a definite life are amortized on a straight-line basis over the related assets' estimated useful lives. Impairment is tested at least annually.
Other intangible assets	43	25		Intangible assets with a definite life are amortized on a straight-line basis over the related assets' estimated useful lives. Impairment is tested at least annually.
Total Assets	17,428			
Percentage of Total Assets	<u>6.59%</u>			

RA 12-3 (Continued)

	Amount	Accum. Amort. Reported?	Impairment reported?	Amort. Policies
Biotech and Pharmaceuticals				
Aeterna Zentaris Inc.	(US \$ thousands)			
December 31, 2011				
Goodwill	9,313	N/A	No	Impairment test annually
Identifiable intangible assets (not separately disclosed)	1,769	36,213	Current year impairment of 1,093 for Cetrotide asset.	If finite useful life, amortized using S/L. Estimated useful life is 8- 15 years for in-process R&D and patents; 10 years for trademarks. Finite useful life assets are tested for impairment only when events suggest that recoverable value is less than carrying value.
Total Assets	<u>75,369</u>			
Percentage of Total Assets	14.70%			
Accumulated Amortization (intangibles) [Note: Cost = 37,982 and CV = 1,769]	36,213			

RA 12-3 (Continued)

	Net Amount	Accum. Amort. Reported?	Accum. Impairment reported?	Amort. Policies
Publishing				
Quebecor Inc.	(\$ millions)			
Dec 31, 2011				
Goodwill	3,543.8	N/A	No	Impairment test performed annually at least.
Customer relationships, non-competition agreements and other	117.5	102.2	No	Amortized using straight-line over useful life 3- 10 years. Annual impairment test at least.
Mastheads	62.6	48.2	No	Amortized using straight-line over useful life 3- 10 years. Annual impairment test at least.
Broadcasting licenses	102.6	N/A	0.8	Annual impairment test, but no amortization as an indefinite life.
AWS spectrum licenses	391.7	66.8	No	Amortized using straight-line over useful life of 10 years. Annual impairment test.
Software	237.2	213.1	No	Amortized using straight-line over useful life of 3- 7 years. Annual impairment test at least.
Under development	129.4	N/A	No	Indefinite life – no amortization. Annual impairment test at least.
Total intangible assets	4,583.8			
Total Assets	9,038.8			

RA 12-3 (Continued)

	Net Amount	Accum. Amort. Reported?	Accum. Impairment reported?	Amort. Policies
Percentage of Total Assets	50.71%			
Accumulated Amortization (intangibles)	431.1			

As per Note 6 of the financial statements, Quebecor had impairment losses of \$1.5 million but the note disclosure did not provide how much of the impairment losses were attributable to intangible assets

RA 12-3 (Continued)

(a), (b), (c), (d) See previous charts.

(c) As can be seen from the previous charts, the percentage of funds invested in intangible assets varies greatly from very low amounts for real estate and food retailers to the highest percentage in publishing. Pharmaceuticals was in between.

A large investment in intangible assets, with various types of intangible assets, would be expected in the biotech and pharmaceutical industry since the companies in this industry sell unique products that are subject to legal protection and that are developed at great cost. Intangible assets would therefore constitute a higher percentage of total assets. The publishing company, Quebecor, also had broadcast and spectrum licenses, which are a significant intangible asset for this industry. A low percentage of intangible assets would be expected for the real estate and the food retail industry where much of the investment is in tangible assets such as land and buildings.

With large companies such as the ones selected, goodwill would be expected since the companies' growth is frequently achieved by acquiring other companies. The types of intangibles also differed across the industries. However, in real estate, lease and tenant relationships are unique. This would be similar to the customer relationships for the printing industry. For the pharmaceuticals, of course, technology and brands are important. Licenses are common for the pharmaceutical and printing industries, but the type of licenses would differ. And finally, for the printing industry, mastheads and spectrum licenses are unique. It can be seen that the policies are all very similar.

(d) The amortization policies are very similar across the industries. Of course, goodwill is not amortized and is tested annually for impairment, as are the intangible assets with indefinite lives. For those intangibles with definite lives, all companies use a straight-line basis over the useful life method. These similarities are not surprising since intangibles are usually not subject to a determination of useful life based on physical properties (such as wear and tear) that lend themselves to methods such as units-of-production.

The useful lives varied from as short as 3 years for computer software to as long as 20 years for lease and tenant relationships for the real estate company. In the printing company these customer relationships are amortized over a much shorter period of 3 to 10 years. However, this likely makes sense, since companies will be reluctant to move from their leased offices and buildings.

RA 12-3 (Continued)

(e) See previous chart for the amounts of accumulated amortization reported for each company.

Brookfield Asset Management disclosed an impairment charge of \$30 million for goodwill in 2011. Note 12 disclosed the amount of the impairment but no further information was disclosed.

In the case of Aeterna Zentaris, an impairment charge of \$1,093,000 was reported on the income statement as additional amortization expense. Note 12 provided disclosure, explaining the calculation of value in use for the impairment test. The disclosure outlines the discount rate, time period and growth rates used. In comparison to Brookfield, a lot more detail was provided in this case.

RA 12-4 L'Oreal

(a) L'Oreal reports the following intangible assets:

	in millions of EURs at net book value	Additions
Goodwill	6,204.6	418.8 (net of disposals)
Brands (trademarks) with a indefinite life span – primarily The Body Shop, Matrix, Kiehl's and Shu Uemura	1,454.3	0
Depreciable brands (trademarks) and product ranges	74.4	0.7
Licenses and patents	930.4	9.0
Other	998.4	98.6
Total net amounts of intangible assets	9,662.1	
Total assets	26,857.6	
Percentage of intangible asset to total assets	35.98%	

(b) Note 1 details the accounting policies for the intangible assets as follows:

- Goodwill is not amortized and is tested annually for impairment.
- All of the intangible assets are also tested annually for impairment.
- International trademarks (brands) have an indefinite life span and are tested for impairment if an unfavourable event occurs but at least annually during the fourth quarter. Examples of unfavourable events are decreases in sales or margins and increases in discount rates.
- Local trademarks (brands) which are gradually replaced by international trademarks have a limited life.
- Product ranges includes costs from acquisitions that relate to product concept, complementary name, formulas patents, packaging, logos, advertising trademarks, etc. These costs are amortized over the remaining life span which is indicated when the packaging, name, formulas and patents are no longer used.
- The company also capitalizes patents and formulas it has developed. The depreciation period of the patent is its legal life.
- Formulas are depreciated over a maximum of 5 years.

RA 12-4 (Continued)

(c) The following methods and assumptions are used for the impairment tests:

- Goodwill is allocated to Cash Generating Units which are one or more of the brands as shown in Note 11. Recoverable amounts are determined using a value in use method. Future cash flows are forecasted for the next 10 years since this is the amount of time required for strategic positioning of an acquisition, using reasonable growth rates for sales determined from market data and the constant growth rate beyond the 10 year period of 3% in most cases. The cash flows are discounted at the company's weighted average cost of capital which was 7.9% adjusted for country specific risk. Fair value less costs to sell method is only used where details of similar recent market transactions are easily available.
- Trademarks are valued using the value in use method and two approaches are adopted:
 - i. Premium based approach – which compares future cash flows specifically generated by the trademark with cash flows generated without the trademark and the difference, is discounted.
 - ii. Royalty based approach – which estimates the value of the trademark using the royalties that would have had to be paid in the future on a similar trademark, and using company prepared sales forecasts.

The company's weighted average cost of capital as explained above is used to discount these cash flows. Terminal growth rates are determined based on market data and was 3% except in specific cases.

- The value of a patent or a formula is determined using the royalty based approach described under trademarks.
- Note 13 outlines the specific discount rates used for significant CGUs including: Lancôme, L'Oreal Paris, Maybelline/Garnier and The Body Shop. The discount rates differ whether the cash flows are generated from the US or internationally and range from a low of 7.9% to a high of 8.9%.
- Also described in Note 13 are the sensitivities. A discount rate increase of 1-point on all CGUs would result in an impairment loss of EUR 21.3 million. Similarly, a 1-point increase in the terminal growth rate on all CGUs would result in an impairment loss of EUR 12.7 million.

RA 12-4 (Continued)

In reviewing the assumptions, it would have been helpful to know the operating margins used and the sales growth rates used to better assess the reasonableness of the recoverable amounts determined. The terminal growth rates and discount rates appear reasonable. However, the 10 year forecast period appears very long and often companies use 5 years.

There was an impairment loss related to the goodwill of Softsheen Carson for EUR 31.8 million and Sanoflore for EUR 5.3 million. Additionally, there was an impairment loss related to the Softsheen Carson brand of EUR 32.8 million.

- (d) The company has research and development costs. Research expense is immediately expensed as incurred. The expenses incurred during the development phase are capitalized to intangible assets when the criteria of IAS 38 are met. However, the company states that due to the large number of development projects and the uncertainty about launching the products, not all of these criteria can be met. The company also capitalizes the development costs related to software for internal use which include the costs of programming, code, testing phases and significant upgrades. Any developments costs that are capitalized are amortized over a probable useful life of 5 to 7 years. These capitalized amounts are likely included in "Other intangible amounts" in the above schedule. During the year, the company expensed EUR 720.5 million.
- (e) The company also incurs advertising and promotion expenses for selling to customers and consumers, which are all immediately expensed as incurred. During the year, the company incurred EUR 6,291.6 million for these expenses.
- (f) As per Note 2, L'Oreal acquired Pacific Bioscience Laboratories Inc. and the brand Clarisonic. In addition, several subsidiaries made acquisitions that have resulted in consolidation for financial reporting purposes. Intangible assets and goodwill acquired totalled EUR 320.8 million and EUR 415.6 million, respectively.

RA 12-5 Regulated Assets

- (a) Utility companies in Canada have regulatory assets and liabilities. Regulatory assets “represent the right to increase future rates from what would otherwise not be allowed”. Regulators set regulated future prices so that future expected costs of providing these services can be recovered. However, when the company incurs higher than these expected costs, these cannot be expensed. Future rates will increase so that earlier costs incurred that were not allowed to be expensed can be recovered by the entities. Regulated assets represent these deferred costs that the entity hopes to recover with increased regulated rates (ie. higher revenues). Consequently, to qualify as an asset, and have probable future economic benefits flow to the entity from these assets, the company must be able to charge higher rates in the future and also collect from the customer. The probability of this will depend on the regulatory and economic environment.
- (b) The current issue is that under IFRS there are no standards on how to report and measure regulatory assets. IAS 38 on intangible assets is the only standard that could be applied. So the issue is to what extent can these assets be recognized as intangible assets?
- (c) IAS 38 defines an intangible asset as a “non-monetary asset with no physical substance” which is identifiable. Also under IAS 38, the company must have the right to control the benefits that arise from the asset; it is probable that future cash flow attributable to the asset will flow to the entity, and that the costs are measurable.

It appears that future cash flows can be expected from this right due to the ability to charge the higher rates, and the costs are measurable. However, the criteria of “control” and “identifiability” are not so obvious. Control implies that the entity has the power to ensure that it will receive the cash flows. However, it is the regulator who has the power to determine whether or not the entity can charge the higher rates and receive these future cash inflows. Not until this decision is made, does the company actually have the power to charge the higher rates. However, if the entity is sufficiently certain that these benefits will be received, and has evidence to support this assessment, would that be enough to recognize the asset even though to be 100% certain the entity needs the regulator’s approval? If yes, then the asset could be recognized under IAS 38.

RA 12-5 (Continued)

Identifiability is determined under IAS 38 if the asset can be separately sold or transferred, or arises from contractual or other legal rights. These rights to increase revenues due to increased regulatory rates could be sold. Is this enough to make the asset separately identifiable under IAS 38? The rights do arise from a legal right, but this legal right does not arise until the regulator has given approval. IAS 38 does discuss the future renewal of legal rights (i.e., trademarks for example) and that the useful life can be based on these future renewal rates if the cost is not significant and there is evidence to support renewal. Using this rationale, if it is probable that the regulator will grant this right, (and the evidence is that they have done so in the past) then could we argue that these regulated assets qualify as an intangible asset?

Finally, where there is not a specific standard dealing with an accounting issue, IAS 8 allows the use of standards dealing with similar and related issues to be used for guidance. IAS 38 could then be applied in these special circumstances and the regulated assets could be recognized.

CUMULATIVE COVERAGE

(a)

Item 1.

Land — Saskatchewan	500,000	
Factory Building — Saskatchewan	1,500,000	
Office Equipment— Saskatchewan.....	250,000	
Interest Expense	75,000	
Asset Additions and Disposals		2,325,000

Since FFI has adopted the policy of not capitalizing interest, the avoidable interest is expensed.

Item 2.

Equipment—Ontario	1,667	
Office Equipment— Ontario (\$833 + \$500) ...	1,333	
Asset Additions and Disposals (\$2,500 + \$500)		3,000

	<u>Fair Value</u>	<u>% of Total</u>	<u>Cost</u>	<u>Recorded Amount</u>
Equipment	\$ 2,000	2/3		\$ 1,667
Office Equipment	<u>1,000</u>	1/3		<u>833</u>
	<u>\$3,000</u>		<u>\$2,500</u>	<u>\$2,500</u>

Item 3.

Asset Additions and Disposals	10,000	
Accumulated Depreciation — Vehicles	10,000	
Loss on Disposal of Vehicle.....	5,000	
Vehicles		25,000

Note: No depreciation is recorded on the vehicle disposed of in year of disposition.

CUMULATIVE COVERAGE: (Continued)

Item 4.

Equipment — Saskatchewan.....	4,212,360	
Notes Payable.....		4,212,360

The present value of an annuity of \$1,000,000 for five periods at 6% imputed interest is calculated as follows:

PV of annual payment of \$1,000,000 X 4.21236* \$4,212,360
 * (PV factor for ordinary annuity for 5 years at 6%)

Excel formula =PV(rate,nper,pmt,fv,type)

Using a financial calculator:

PV	\$?	Yields \$ 4,212,364
I	6%	
N	5	
PMT	\$ (1,000,000)	
FV	\$ 0	
Type	0	

Interest accrued at year end for one month on interest incurred from the date of signing the note payable.

Interest Expense	21,062	
Notes Payable.....		21,062
(\$4,212,360 X 6% X 1/12 = \$21,062)		

CUMULATIVE COVERAGE: (Continued)**Item 5.**

Office Equipment—Ontario (new)	4,000	
Accumulated Depreciation—Office Equipment—Ontario	3,000	
Office Equipment—Ontario (old).....		7,000

Note: No gain is recognized as this transaction is a non-monetary exchange of similar assets that lacks commercial substance.

Item 6.

Repair Expense (\$4,000 + \$10,000)	14,000	
Equipment—Saskatchewan.....	25,000	
Asset Additions and Disposals		39,000

Some students might put the \$25,000 cost of the security system into the Building account. Because its useful life is likely shorter than 20 years, it is better to recognize it separately as equipment.

Item 7.

Development Costs*	390,000	
Research Expense.....	50,000	
Advertising Expense.....	47,000	
Asset Additions and Disposals		487,000

*($\$350,000 + \$40,000$). This assumes all six capitalization criteria have been met at the point these costs were incurred.

CUMULATIVE COVERAGE: (Continued)

Depreciation Expense —Building	235,000	
Accumulated Depreciation — Building—Ontario		235,000
(\$10,875,000 – \$5,000,000 ÷ 25)		
Depreciation Expense —Building	36,250	
Accumulated Depreciation — Building—Saskatchewan		36,250
(\$1,500,000 – \$50,000 ÷ 20 years X 50%)		
Depreciation Expense —Equipment	1,644,453	
Accumulated Depreciation — Equipment—Ontario		1,644,453
Beginning Balance:		
Cost	23,756,000	
Less: Accumulated depreciation	<u>17,179,022</u>	
Carrying amount January 1, 2014	6,576,978	
Item 5 has nil effect on carrying amount X 25%		1,644,245
Additions during 2014 (Item 2)	1,667	
X 25% X 50%		<u>208</u>
Total		<u>\$1,644,453</u>
Depreciation Expense —Equipment	529,670	
Accumulated Depreciation — Equipment— Saskatchewan		529,670
Item 4:	4,212,360	
Item 6:	<u>25,000</u>	
Total	4,237,360	
X 25% X 50%		529,670

CUMULATIVE COVERAGE: (Continued)

Depreciation Expense —Office Equipment..	123,883	
Accumulated Depreciation —		
Office Equipment—Ontario.....		123,883
Beginning Balance:		
Cost	3,000,000	
Less Accumulated depreciation.....	<u>2,688,960</u>	
Carrying amount January 1, 2014	311,040	
Less book value of asset disposal.....	<u>(4,000)</u>	
Book value for depreciation	307,040	
X 40%.....		122,816
Additions during 2014 (Item 2)	1,333	
Addition during 2014 (Item 5)	<u>4,000</u>	
Depreciation on additions of	5,333	
X 40% X 50%		<u>1,067</u>
Total		<u>\$123,883</u>
Depreciation Expense —Office Equipment..	50,000	
Accumulated Depreciation —		
Office Equipment— Saskatchewan .		50,000
(Item 1: \$250,000 X 40% X 50%)		
Depreciation Expense —Vehicles	33,864	
Accumulated Depreciation —		
Vehicles—Ontario.....		33,864
Beginning Balance:		
Cost	500,000	
Less Accumulated depreciation.....	<u>315,680</u>	
Carrying amount January 1, 2014	184,320	
Disposal in 2014: Item 3		
Cost	25,000	
Less: Accumulated Depreciation	<u>10,000</u>	<u>(15,000)</u>
Balance for depreciation.....	169,320	
X 20%.....		<u>33,864</u>

CUMULATIVE COVERAGE: (Continued)

Amortization Expense—Development Costs	65,000	
Accumulated Amortization—		
Development Costs		65,000
(Item 7: \$390,000 ÷ 3 X 50%)		

Item 8.

Amortization Expense—Customer List	25,000	
Accumulated Amortization —		
Customer List.....		25,000
(\$250,000 ÷ 10 years)		

Impairment Loss—Customer List	66,500	
Accumulated Impairment Loss—		
Customer List.....		66,500

Cost	250,000
Less accumulated amortization, Jan. 1, 2014	112,500
Less amortization 2014.....	<u>25,000</u>
Carrying amount Dec. 31, 2014	<u>112,500</u>

Undiscounted cash flows	50,000
Therefore the customer list is impaired.	

Fair value	46,000*
Impairment excess of carrying amount over fair value:	
Carrying amount	112,500
Fair value	<u>46,000</u>
Impairment.....	<u>66,500</u>

*The fair value amount is not provided. However, assuming the list has no market value, its value in use is a reasonable surrogate for fair value. In addition, \$46,000 is the present value of an annuity of \$25,000 ($n=2$, i =between 5% and 6%) – so this is not an unreasonable estimate of fair value.

Recoverable value of goodwill in the amount of \$700,000 exceeds carrying amount of \$500,000 and so no entry is required.

CUMULATIVE COVERAGE: (Continued)

FIT FIXTURES INCORPORATED
Balance Sheet (partial)
December 31, 2014

Property, Plant and Equipment

Land		\$2,000,000
Buildings	\$12,375,000	
Less: Accumulated depreciation	<u>1,328,750</u>	11,046,250
Equipment	27,995,027	
Less: Accumulated depreciation	<u>19,353,145</u>	8,641,882
Office equipment	3,248,333	
Less: Accumulated depreciation	<u>2,859,843</u>	388,490
Vehicles	475,000	
Less: Accumulated depreciation	<u>339,544</u>	<u>135,456</u>
Total property, plant and equipment		\$22,212,078
Development costs (net)		325,000
Customer list (net)		46,000
Goodwill		500,000

CUMULATIVE COVERAGE: (Continued)**Details of balances:**

	<u>Ontario</u>	<u>Saskatchewan</u>	<u>Total</u>
Assets cost			
Land	<u>1,500,000</u>	<u>500,000</u>	<u>2,000,000</u>
Building	10,875,000		
Item 1		<u>1,500,000</u>	
	<u>10,875,000</u>	<u>1,500,000</u>	<u>12,375,000</u>
Equipment	23,756,000		
Item 2	1,667		
Item 4		4,212,360	
Item 6		<u>25,000</u>	
	<u>23,757,667</u>	<u>4,237,360</u>	<u>27,995,027</u>
Office Equipment	3,000,000		
Item 1		250,000	
Item 2	1,333		
Item 5 (net)	<u>(3,000)</u>		
	<u>2,998,333</u>	<u>250,000</u>	<u>3,248,333</u>
Vehicles	500,000		
Item 3	<u>(25,000)</u>		
	<u>475,000</u>		<u>475,000</u>
Customer			
List Opening	<u>250,000</u>		<u>250,000</u>
Development Costs			
Item 7	<u>390,000</u>		<u>390,000</u>

CUMULATIVE COVERAGE: (Continued)**Accumulated depreciation/amortization and impairment**

Building Opening	1,057,500		
2014 entry	235,000	36,250	
	1,292,500	36,250	1,328,750
Equipment Opening	17,179,022		
2014 entry	1,644,453	529,670	
	18,823,475	529,670	19,353,145
Office Equipment Opening	2,688,960		
Item 5	(3,000)		
2014 entry	123,883	50,000	
	2,809,843	50,000	2,859,843
Vehicle Opening	315,680		
Item 3	(10,000)		
2014 entry	33,864		
	339,544		339,544
Customer List Opening	112,500		
2014 entry	25,000		
2014 entry-impairment	66,500		
	204,000		204,000
Development costs			
2014 entry	65,000		
	65,000		65,000

(b)**Avoidable interest —Item 1:**

Borrowing costs incurred on the construction of the Saskatchewan building must be capitalized under IFRS, whereas private entity GAAP permits a choice of policy.

CUMULATIVE COVERAGE: (Continued)**Customer list – Item 8:**

The process for determining the amount of the impairment loss would be different, although the same impairment loss would be calculated. If the assumption is that there is no market for the customer list or that its selling price is \$46,000 or less, its fair value less costs to sell would be \$0 or <\$46,000, respectively. With a value in use of \$46,000, the recoverable amount would be \$46,000, and the impairment loss would be identical to the amount calculated under ASPE.

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