ADM 4348
MID TERM EXAM
Selected Topics in Financial Accounting
Fall 2012
SOLUTIONS

Student Name: _____

Student #: _____

Course: (Professor Collier)

Instructions:

1. This examination comprises 4 questions over 16 pages. The last page (page 16) is a page for rough work. Present value tables of an annuity due and an ordinary annuity are attached at the end of the exam. Answer all questions in this booklet. The booklet is not to be removed from the examination room. You may separate the pages but ensure that you put them back together and stapled before handing in.

2. Limit your answer to the space provided. Blank sheets for rough work and supporting calculations are given at the end of each question.

3. This exam is out of 90 marks and is 3 hours long. You should budget approximately 2 minutes per mark.

4. Please do **not** ask the invigilator or the professor any questions, as they will **not** be answered. State reasonable assumptions, if you feel they are necessary. Narrative explanations to any journal entries are **not** required.

5. Language dictionaries (non-electronic) are allowed if the invigilator permits them. They must be shown to the invigilator before the start of the exam.

6. The use of electronic communication devices such as cell phones is strictly prohibited during the exam.

7. You ***must*** sign the Statement of Academic integrity on page 2 of this exam.

Question		Marks
1	Leases	/42
2	Pensions	/18
3	Pensions	/20
4	Segmented and Interim Financial Reporting	/10
TOTAL		/90

Statement of Academic Integrity
The Telfer School of Management does not condone academic fraud, an act by a student that may result in a false academic evaluation of that student or of another student. Without limiting the generality of this definition, academic fraud occurs when a student commits any of the following offences: plagiarism or cheating of any kind, use of books, notes, mathematical tables, dictionaries or other study aid unless an explicit written note to the contrary appears on the exam, to have in his/her possession cameras, radios (radios with head sets), tape recorders, pagers, cell phones, or any other communication device which has not been previously authorized in writing.

Statement to be signed by the student:
I have read the text on academic integrity and I pledge not to have committed or attempted to commit academic fraud in this examination.

Signed:_____

Note: an examination copy or booklet without that signed statement will not be graded and will receive a final exam grade of zero.

Question No. 1 (42 marks)

Wynn Corporation, a lessee, entered into a non-cancellable lease agreement with Trump Enterprises, a manufacturer dealer, to lease special purpose equipment for a period of seven years. The following information relates to the lease agreement:

Lease inception	May 1, 2010
Annual lease payment due at the beginning of each lease year	?
Residual value of equipment at the end of lease term, guaranteed by an independent third party	$100,000
Economic useful life of the leased equipment	10 years
Selling price of the equipment	$415,000
Manufacturing cost of the equipment on the lessor's books	$327,500
Lessor's implicit interest rate, known to the lessee	12%
Lessee's incremental borrowing rate	12%
Annual executory costs to be paid by the lessee on December 31	$14,000

The equipment reverts back to Trump Enterprises at the end of the lease although Wynn has an option to buy the equipment at its expected fair market value at that time. Collectibility of the lease payments is reasonably assured and there are no important cost uncertainties about costs that have not yet been incurred by Trump. Both parties have a December 31 year-end and both parties follow ASPE.

Required:

Notes: 1. *All supporting calculations, including annuity and present value factors, must be clearly shown, where required.*

2. *You may find it useful to set up an amortization schedule to answer certain parts to this question. However, marks are not awarded for the schedule. If you do use an amortization schedule, ensure your dates are set at May 1 of each year.*

(a) Calculate the size of the annual lease payments received by Trump Enterprises, taking into account the third-party guaranteed residual value, in order to provide Trump with a 12% rate of return. (4 marks)

(b) Prepare dated journal entries for Trump Enterprises from the lease inception date up to and including December 31, 2012. (16 marks)

(c) Prepare a partial Balance Sheet for Trump Enterprises as at December 31, 2010 and show how the lease receivable is presented. Trump reports all lease receivables under non-current assets and, hence, does not separate its lease receivables into current and non-current classifications. Ignore note disclosures. (6 marks)

(d) Prepare a partial Income Statement for Trump Enterprises in multiple-step format for the year ending December 31, 2010 showing all relevant accounts. (4 marks)

(e) Test all lease capitalization criteria and explain why, based upon the information presented, this has to be treated as an operating lease by Wynn Corporation. Show supporting calculations, where required. (4 marks)

(f) Prepare dated journal entries for Wynn Corporation from the lease inception date up to and including May 1, 2011. (5 marks)

(g) Identify the accounts and amounts that Wynn Corporation will report on its December 31, 2010 Balance Sheet and its 2010 Income Statement. Ignore note disclosures. (3 marks)

Question No. 1 (42 marks)

Answer:

(a) For the purpose of calculating the lease payment that will yield a 12% return to Trump Enterprises, the guaranteed residual value from a third party must be included in the calculations as shown below:

Using a financial calculator:

PV	*$ (415,000)*	
I	*12%*	
N	*7*	
PMT	*$?*	*Yields $72,341*
FV	*$ 100,000*	
Type	*1*	

So, the PV of a $72,341 annuity due and the PV of the $100,000 third-party guaranteed RV is: $72,341(5.111407) + $100,000(.452349) = $369,764 + $45,235 = $414,999 (close enough!)

Trump Enterprises (Lessor)
Lease Amortization Schedule (optional)

Date	*Annual Lease Payment Plus RV*	*Interest (12%) on Net Investment*	*Net Investment Recovery*	*Balance of Net Investment*
5/1/08				*$415,000*
5/1/08	*$ 72,341*		*$ 72,341*	*342,659*
5/1/09	*72,341*	*$41,119*	*31,222*	*311,437*
5/1/10	*72,341*	*37,372*	*34,969*	*276,468*
5/1/11	*72,341*	*33,176*	*39,165*	*237,303*
5/1/12	*72,341*	*28,476*	*43,865*	*193,438*
5/1/13	*72,341*	*23,213*	*49,128*	*144,310*
5/1/14	*72,341*	*17,317*	*55,024*	*89,286*
5/1/15	*100,000*	*10,714*	*89,286*	*0*
	$606,387	*$191,387*	*$415,000*	

(b) Lessor (Trump) journal entries:

5/1/10	*Lease Payments Receivable**	*606,387*	
	Cost of Goods Sold	*327,500*	
	Sales		*415,000*
	Inventory		*327,500*
	Unearned Interest Income—Leases		*191,387*
	** ($72,341 X 7) +$100,000*		
5/1/10	*Cash*	*72,341*	
	Lease Payments Receivable		*72,341*
12/31/10	*Unearned Interest Income – Leases*	*27,413*	
	Interest Income		*27,413*
	[($415,000 – $72,341) X .12 X 8/12]		

Question No. 1 (42 marks) (continued)

5/1/11	*Unearned Interest Income – Leases*	*13,706*	
	Interest Income		*13,706*
	[($415,000 – $72,341) X .12 X 4/12]		
5/1/11	*Cash*	*72,341*	
	Lease Payments Receivable		*72,341*
12/31/11	*Unearned Interest Income – Leases*	*24,915*	
	Interest Income		*24,915*
	[($415,000 – $72,341 – $31,222) X .12 X 8/12]		
5/1/12	*Unearned Interest Income – Leases*	*12,457*	
	Interest Income		*12,457*
	[($415,000 – $72,341– $31,222) X .12 X 4/12]		
5/1/12	*Cash*	*72,341*	
	Lease Payments Receivable		*72,341*
12/31/12	*Unearned Interest Income – Leases*	*22,117*	
	Interest Income		*22,117*
	[($415,000 – $72,341– $31,222– $34,969) X .12 X 8/12]		

(c)

Financial Statement Amounts – Trump Enterprises

Balance Sheet, December 31, 2010:	
Non-Current Assets	
Gross lease receivables (6 x $72,341) + $100,000	*$ 534,046*
Unearned finance revenue ($13,706 + $37,372 + $33,176*	
+ $28,476 + $23,213 + $17,317 + $10,714)	*163,974*
Net lease receivable ($342,659 + $27,413)	*370,072*

** ($41,119 – $27,413 = $13,706)*

(d)

Income Statement for the period ending December 31, 2010:	
Sales	*$ 415,000*
Cost of goods sold	*327,500*
Gross profit	*87,500*
Interest income	*27,413*

Question No. 1 (42 marks) (continued)

(e) Based upon the information presented, Wynn Corporation must account for the lease as an operating lease since:

Using a financial calculator:

PV	*$?*	*Yields $369,764*
I	*12%*	
N	*7*	
PMT	*$ 72,341*	
FV	*$ 0*	*Factor = 5.1114073*
Type	*1*	

There is no transfer of ownership or BPO and we are explicitly told the lease reverts back to Trump. Also, the lease term of 7 years is less than 75% of the economic life (10 years) of the leased asset. Finally, with a residual value guaranteed by a third party (not Wynn Corporation), the present value of minimum lease payments excluding executory costs represents only 89% ($369,764 / $415,000) of the $415,000 fair value of the leased asset as at May 1, 2010, thereby falling short of the 90% criterion stipulated under ASPE in order to treat the lease as a capital lease.

(f) Wynn Corporation (Lessee) journal entries:

5/1/10	*Prepaid Rent .....*	*72,341*	
	Cash		*72,341*
12/31/10	*Rent Expense .....*	*48,227*	
	Prepaid Rent		*48,227*
	($72,341 X 8/12)		
12/31/10	*Maintenance Expense .....*	*14,000*	
	Cash		*14,000*
5/1/11	*Rent Expense .....*	*24,114*	
	Prepaid Rent		*24,114*
	($72,341 X 4/12)		
5/1/11	*Prepaid Rent .....*	*72,341*	
	Cash		*72,341*

(g)

Financial Statement Amounts – Wynn Corporation

Balance Sheet, December 31, 2010:

Current assets	
Prepaid rent	*$ 24,114*

Income Statement for the period ending December 31, 2010:

Rent expense	*$ 48,227*
Executory (maintenance) expense	*14,000*

Question No. 2 (18 marks)

Harrington Printers Limited established a defined benefit pension plan 10 years ago to provide retirement benefits for all its employees. Harrington follows IFRS but did not elect to follow the option available under IFRS rules whereby actuarial gains and losses could be reported in other comprehensive income.

The plan is non-contributory and is management by a financial intermediary who invests all funding contributions into the pension fund and pays out all retirement benefits as they become due. Vesting occurs when an employee reaches age 48 and has been employed by Harrington Printers for 15 years. None of Harrington's employees have reached the age of 48 years as at December 31, 2011.

- At the inception of the plan, past service costs (PSCs) amounted to $120,000.
- For accounting purposes, PSCs are being amortized on a straight-line basis over 15 years (the EPFE of the employee group at the inception of the plan).
- The PSCs are being funded over 10 years by level annual end-of-year payments calculated at 5% (see actuarial report, following).
- Each year, the company also funds an amount equal to the sum of the current service costs and past service costs less any actuarial gains or plus actuarial losses for that year.
- No benefits were paid out to retirees during 2011.
- At the end of 2010, the accumulated benefit obligation was $496,330 and the cumulative unrecognized net actuarial gains were $61,700.
- In 2011, the expected average remaining service life of the employee group was estimated to be 20 years.
- The expected average annual return on plan assets is 5%.

The independent actuary's 2011 revaluation report follows:

2011 Current service costs		
Computed by the projected benefits method		$ 34,150
2011 Actuarial revaluation		
Experience gains for		
Mortality	$3,150	
Employee turnover	5,050	
Reduction in accrued benefit obligation due to layoffs	8,000	
Decrease in accrued benefit obligation due to increase in discount rate	11,800	
Net actuarial gain		$ 28,000
2011 funding		
Current service costs	$34,150	
Past service costs	15,541	
Less revaluation gains of 2011	(28,000)	
Total cash contribution to plan		$ 21,691
Pension plan assets portfolio		
Market value, 31 December 2010		$550,316
Portfolio performance, 2011		
Interest, dividends and capital gains		60,674
Market value, 31 December 2011		$610,990
Pension plan assets rate of return for 2011		11.025%

Required:

Calculate the following:

(a) pension expense for 2011; (7 marks)

(b) the balance of the accrued benefit obligation at December 31, 2011; (4 marks)

(c) the balance of unrecognized net actuarial gains and losses at the end of 2011. The company follows the practice of amortizing net actuarial gains and losses to pension expense when the January 1 amount is outside the 10% corridor. (7 marks)

Question No. 2 (18 marks) (continued)

Answer:

(a) Pension expense for 2011:

Current service costs	*$34,150*
Past service costs ($120,000/15)	*8,000*
Interest on accrued obligation, beginning of year ($496,330 x 5%)	*24,817*
Less: expected earnings on pension plan assets ($550,316 x 5%)	*(27,516)*
Amortization of net actuarial gains (see below)	*(333)*
	$39,118

(b) Year-end accrued benefit obligation at December 31, 2011:

Accrued benefit obligation, 31 December 2010	*$496,330*
Current service costs	*34,150*
Interest costs on accrued benefit obligation @ 5%	*24,817*
Actuarial revaluation gain during 2011	*(28,000)*
Accrued benefit obligation, 31 December 2011	*$527,297*

(c) Evaluation of the need for actuarial gain or loss amortization and carry forward:

Cumulative unrecognized gain, January 1, 2011	*$61,700 gain*
10% Corridor $550,316 x 10%	*55,032*
Excess	*6,668*
Amortization ($6,668 / 20)	*$ 333*
New experience gains/losses, for 2011	
Actuarial revaluations (gain)	*$28,000*
Experience, pension assets ($27,516 - $60,674)	*$33,158*
Balance at December 31, 2011 ($61,700 + $28,000 + $33,158 – $333)	*$122,525*

Question No. 3 (20 marks)

Required:

Answer the following four (4) independent questions with respect to pensions and other post-retirement benefits.

1. When is a valuation allowance required with respect to a pension fund asset and how is it accounted for? (4 marks)

   Answer:

   A valuation allowance is needed with respect to a pension fund asset when there exists a doubt that the company will receive its benefit. The valuation allowance reduces the accrued pension asset's reported amount to the expected benefit. The amount of any write-down is charged to pension expense in the period of the write-down.

2. For Castor Corporation, year-end pension plan assets were $2,000,000. At the beginning of the year, plan assets were $1,850,000. During the year, contributions to the pension fund were $130,000, while benefits paid were $170,000. The expected return on plan assets was 12%. Calculate the experience gain or loss during the year on plan assets. (5 marks)

   Answer:

Ending plan assets		*$2,000,000*
Beginning plan assets		*1,850,000*
Increase in plan assets		*150,000*
Deduct: Contributions	*$130,000*	
Less benefits paid	*(170,000)*	*(40,000)*
Actual return on plan assets		*$ 190,000*

   Expected return is 12% x $1,850,000 = $222,000
   Experience loss is $222,000 – $190,000 = $32,000

3. Explain three differences in the accounting of defined pension plans under ASPE between the immediate recognition approach and the deferral and amortization approach. (6 marks)

   Answer:

   One major difference is in the treatment of past service costs and net actuarial gains and losses. The total cost of these elements is recognized immediately as part of pension expense under the immediate recognition approach whereas only an amortized portion of these items is allowed to be recognized under the deferral and amortization approach.

   A second difference relates to the calculation of the return on pension fund assets. The immediate recognition approach requires the actual return on pension fund assets to be used in the pension expense calculation whereas the deferral and amortization approach requires the expected return to be used.

   The third difference is explained as follows: Under the immediate recognition approach, the balance in the Accrued Pension Asset/Liability account will be the same as the funded status of the plant. See Exhibit 19-10 and Exhibit 19-11 for examples. (A minor exception can possibly occur if the balance in the Accrued Pension Asset account is greater than the future benefits the company expects to receive, in which case a valuation account/contra asset account must be used. (See footnote #17 on page 1246]. Under the deferral and amortization approach, the balances in these two accounts will not be the same, thereby requiring a reconciliation to be performed (see page 1259).

Question No. 3 (continued) (20 marks)

4. Presented below is pension information related to Cantaloupe Ltd. for the year 2012. The corporation uses the immediate recognition approach.

Service cost	$900,000
Actual return on plan assets	210,000
Interest on accrued benefit obligation	14%
Actuarial experience loss	90,000
Past service costs awarded on January 1, 2012	165,000

Required:

Calculate the pension expense for 2012. It is not required to record the journal entry. (5 marks)

Answer:

Pension expense for 2012 = $900,000 + 165,000 + (14% x 165,000) + $90,000 – $210,000 = $968,100.

Question No. 4 (10 marks)

Information on various segments of Langevin Corporation is presented below. Operating segments have been identified using the guidance provided by *Section 1701 of the CICA*.

			Revenues	
Segment	Profit (Loss)	Assets	External	Intersegment
1	$214,000	$251,000	$391,000	$ 27,000
2	(432,000)	412,000	374,000	51,000
3	447,000	497,000	362,000	32,000
4	(32,000)	209,000	97,000	113,000
5	117,000	392,000	75,000	Nil
6	(112,000)	156,000	106,000	42,000
7	86,000	437,000	160,000	3,000
8	62,000	181,000	62,000	Nil
Totals	$350,000	$2,535,000	$1,627,000	$268,000

Required:

(a) Using the three reportable criteria outlined in *CICA 1701*, complete the following table below and indicate by means of a "yes" or "no" under each column which criteria were met and which criteria were not met by each segment. State which segments, if any, are non-reportable. (5 marks)

(b) Superimposed on these three criteria is a "dominant segment disclosure" criterion. What does this dominant segment disclosure criterion say? (2 marks)

(c) According to *CICA 1701*, describe the three criteria that define an "operating segment"? (3 marks)

Answer:

(a) *Profit (Loss)*
*$ 92,600 [(10%)($926,000)]**

Assets
$253,500 [(10%)($2,535,000)]

Revenues
*$189,500 [(10%)($1,627,000 + $268,000)]***

Question No. 4 (continued) (10 marks)

** $926,000 is the combined reported profit of all operating segments that did not report a loss. It is larger than the combined loss for all operating segments reporting a loss.*

*** The revenue criterion is based on combined external and inter-segment revenues.*

Based on these criteria, the results of our tests are as follows:

	Criteria		
Segment	*Profit (Loss)*	*Assets*	*Revenues*
1	*Yes*	*No*	*Yes*
2	*Yes*	*Yes*	*Yes*
3	*Yes*	*Yes*	*Yes*
4	*No*	*No*	*Yes*
5	*Yes*	*Yes*	*No*
6	*Yes*	*No*	*No*
7	*No*	*Yes*	*No*
8	*No*	*No*	*No*

Segment 8 is the only non-reportable segment.

(b) *Superimposed on these criteria is a dominant segment disclosure which states that, if the total external revenue reported by operating segments is less than 75% of an enterprise's total revenue, then additional segments need to be identified as reportable segments (even if they didn't originally meet the criteria of CICA 1701.19) until at least 75% of the enterprise's total external revenue is included in reportable segments (CICA 1701.22).*

(c) *An "operating segment" is defined under CICA 1701 as a component within an enterprise:*

(i) *that engages in business activities from which it may earn revenue and incurs expenses (including intersegment revenues and expenses);*

(ii) *whose operating results are reviewed regularly by the enterprises's chief operating decision maker (ie. someone who is responsible for allocating resources and assessing performance); and*

(iii) *to which discrete financial information is available.*