Practice Education Course – Group Benefits Practice Area
Exam – May 2015

This exam consists of fifteen (15) multiple choice questions worth 12 points and six (6) written answer questions worth 32 points for a total of 44 points.

Table of Contents

<table>
<thead>
<tr>
<th>Multiple Choice Questions</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Question 1</td>
<td>2</td>
</tr>
<tr>
<td>Question 2</td>
<td>2</td>
</tr>
<tr>
<td>Question 3</td>
<td>3</td>
</tr>
<tr>
<td>Question 4</td>
<td>3</td>
</tr>
<tr>
<td>Question 5</td>
<td>4</td>
</tr>
<tr>
<td>Question 6</td>
<td>4</td>
</tr>
<tr>
<td>Question 7</td>
<td>5</td>
</tr>
<tr>
<td>Question 8</td>
<td>5</td>
</tr>
<tr>
<td>Question 9</td>
<td>6</td>
</tr>
<tr>
<td>Question 10</td>
<td>6</td>
</tr>
<tr>
<td>Question 11</td>
<td>7</td>
</tr>
<tr>
<td>Question 12</td>
<td>7</td>
</tr>
<tr>
<td>Question 13</td>
<td>8</td>
</tr>
<tr>
<td>Question 14</td>
<td>8</td>
</tr>
<tr>
<td>Question 15</td>
<td>9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Written Answer Questions</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Question 16</td>
<td>11</td>
</tr>
<tr>
<td>Question 17</td>
<td>12</td>
</tr>
<tr>
<td>Question 18</td>
<td>13</td>
</tr>
<tr>
<td>Question 19</td>
<td>14</td>
</tr>
<tr>
<td>Question 20</td>
<td>15</td>
</tr>
<tr>
<td>Question 21</td>
<td>17</td>
</tr>
<tr>
<td>Question 22</td>
<td>18</td>
</tr>
</tbody>
</table>
Section 1: Multiple Choice/Grid Questions

Each of the 15 multiple choice questions is worth 0.8 point for a total of 12 points.

Question 1  Which of the following statements are true regarding the Canadian Drug Insurance Pooling Corporation?

I. The Corporation was created out of a concern about the sustainability of Canadian private drug plans due to recurring high cost drugs.
II. The agreement covers all drug plans except ASO plans.
III. The agreement consists of two components: pooling at the insurer level purchased by the plan sponsor, and pooling across participating insurers.
IV. For a claim to be eligible for industry pooling, it must exceed the initial threshold in the first year, and exceed the ongoing threshold for each year thereafter.

A. I and II
B. I and III
C. I and IV
D. II and III
E. II and IV

Question 2  Which of the following statements about disability benefits and income replacement programs are true?

I. All Supplemental Unemployment Benefit (SUB) Plans must be registered, including maternity and parental benefits.
II. Employers must share one half (or six-twelfths) of their EI premium reduction with employees, either through reduced premium or enhanced benefits.
III. Payments from self-insured short-term disability plans are subject to income and payroll taxes, but not to C/QPP, EI, or Workers’ Compensation contributions.
IV. Court decisions have stipulated that there is a period of disability related to delivery of a baby (usually deemed 6 weeks), and income replacement programs should treat this period like any other disability.

A. I, II, III, and IV
B. II and III
C. II only
D. III only
E. IV only
Question 3  Which of the following statements are true regarding the financing of provincial hospital and medical insurance plans?

I. The federal and provincial governments share the cost of these plans equally.

II. If an employer pays any portion of a provincial health premium on behalf of an individual, the contribution is included as taxable income to the individual.

III. The provinces use various methods of funding the costs not covered by the federal government, including payroll taxes, resident premiums, sales taxes, and general revenues.

IV. Because of how the Canada Health and Social Transfer is structured, it is easy to determine what the contribution is towards the provincial hospital plans.

A. I only
B. II only
C. III only
D. II and III
E. All of the above

Question 4  Which of the following statements about Workers’ Compensation plans are false?

I. A fundamental principle of the provincial Workers’ Compensation plans is the concept of no-fault insurance.

II. Income replacement payments made to injured employees are taxable, but health expense reimbursements are not.

III. The Workers’ Compensation system is funded by employer and employee contributions.

IV. Each province uses some combination of prospective and retrospective experience rating to encourage employers to prevent accidents and return employees to work.

A. I, II, III, and IV
B. II and III
C. I only
D. II only
E. III only
Question 5  The following is NOT an example of actuarial evidence work:

A. Independent expert opinions given in litigation arising from another actuary’s work completed in respect of a pension plan or an insurance business.
B. Determination of the capitalized values of pecuniary losses in civil litigation proceedings.
C. Valuation of an insurer for a merger or an acquisition.
D. Provision of an independent expert opinion with respect to another actuary’s work that is being challenged or in cases of alleged professional negligence.

Question 6  Concerning the embedded value of group insurance, which of the following statements are true?

I. The embedded value of group insurance always includes the portion of an insurer’s surplus that is notionally allocated to its Group insurance business.
II. The embedded value of group insurance always includes the portion of an insurer’s surplus that is tied to group insurance as a function of the company’s MCCSR ratio.
III. The embedded value of group insurance does not include any portion of an insurer’s surplus.
IV. All provisions for adverse deviations are included in a calculation of embedded value.

A. All but I  
B. All but II  
C. Only I  
D. Only II  
E. None of the above
Question 7  With respect to capital requirements, which of the following statements are true?

I. The minimum Tier 1 capital ratio is 60%.
II. The supervisory total capital ratio is 150%.
III. A company’s internal target capital ratio can be equal to the supervisory capital ratio.
IV. The primary goal of MCCSR is to allow regulators to identify insolvent or potentially insolvent insurer.

A. Only I
B. I and II only
C. II and IV only
D. I and III only
E. I, II and III

Question 8  Regarding the Quebec Prescription Drug Insurance Act, which of the following are true?

I. A group insurance plan can terminate coverage for prescription drugs when an insured person reaches age 65.
II. An “Employer-employee type” group insurance plan that covers short-term disability must also cover prescription drugs.
III. An “Association type” group insurance plan can provide prescription drug insurance to a group such as the Association of Quebec Business Persons.

A. I and II
B. I and III
C. II and III
D. I, II and III
E. None of A, B, C or D is the correct answer
Question 9 Which of the following situations constitute illegal discrimination for an “Employer-employee type” group insurance plan?

I. Refusal to pay short-term disability benefits to a female employee who delivers a baby, when her absence from work is due solely to the phenomenon of pregnancy and delivery.

II. Refusal to cover a same-sex spouse under a group dental insurance plan.

III. Life insurance program that pays 1x salary upon the death of a blue collar worker, 2x salary upon the death of a white collar worker and 3x salary upon the death of a manager.

A. I and II
B. I and III
C. II and III
D. I, II and III
E. None of A, B, C or D is the correct answer

Question 10 With respect to the valuation of the long-term disability reported claims liability, which of the following statements are false?

I. The margin for adverse deviations should be greater if past experience has been very volatile.

II. The CIA 1988-1997 table should be used without adjustments for the valuation of liabilities for contracts that have a 12 month elimination period and to age 65 own occupation definition of disability.

III. The insurer does not need to hold liabilities for claimants undergoing rehabilitation and receiving reduced benefits.

IV. The CDT64 table may be used for valuation purposes for groups that are valued using a version of this table for experience rating purposes.

A. All but I
B. All but II
C. All but III
D. All
E. None of the above
Question 11  Regarding capital requirements for mortality and morbidity risks, which of the following statements are true?

I. The greater the standard deviation of the upcoming year’s projected net death claims, the greater the capital requirement for mortality risk.

II. All benefit amounts and reserve amounts used to determine capital requirements should be calculated net of reinsurance.

III. The greater the length of premium rate guarantees, the greater the capital requirement for morbidity risk.

IV. The capital requirements for a hold harmless agreement issued to the Government of Canada may be multiplied by 5%.

A. All but I
B. All but II
C. All but III
D. All
E. None of the above

Question 12  Which of the following statements are true about IAS 19 (2011)?


II. Short-term employee benefits are those expected to be settled wholly before twelve months after the end of the annual reporting period during which employee services are rendered.

III. Under a defined contribution plan, the entity pays fixed contributions into a fund but has no legal or constructive obligation to make further payments if the fund does not have sufficient assets to pay all of the employees’ entitlements to post-employment benefits.

IV. For Other Long-term Employee Benefits, service cost, net interest and re-measurements as are all recognized in profit or loss (unless recognized in the cost of an asset under another IFRS).

A. All but I
B. All but II
C. All but III
D. All but IV
E. All of the above
Question 13  What are some of the key considerations in being able to offer adequate coverage to retirees on a sustainable basis?

I.  Increase the service requirement to 10 or 15 years of service for plan eligibility.
II. Include a retiree contribution.
III. Include DC types of arrangements to eliminate the impact of inflation.
IV. Focus the plan sponsors funds on budgetable expenses.

A.  All but I
B.  All but II
C.  All but III
D.  All but IV
E.  All of the above

Question 14  CloudyDay Enterprises offers a health care spending account (HSA) to all employees where unreimbursed expenses can be rolled-forward for up to twelve months after the end of the plan year. Heather did not deposit any flexible credits in her HSA in 2014 but deposited $550 for 2015. Which of the following statements are false?

I.  Her dental expense incurred on December 21, 2014 can be claimed from the HSA in January 2015.
II. After claiming expenses of $700 in 2015, Heather can roll-over the unreimbursed expenses to her retiree HSA in 2016.
III. Heather will pay income tax on the claims reimbursed by her HSA as she lives in Ontario.
IV. After learning the amount of her yearly bonus in January 2015, Heather can deposit $300 in her 2015 HSA account.

A.  Only III is false
B.  II and III
C.  III and IV
D.  I, III and IV
E.  II, III and IV
Question 15  As a group insurance consultant, you know that one of your important national clients has the following distribution of employee throughout Canada:

- Alberta 15%
- Québec 45%
- Ontario 30%
- PEI 10%

Which of the following statements are true?

I. The average 2015 premium tax included in rates by the carrier is 2.82%.
II. The average provincial sales tax included in premium rates by the carrier is 6.45%.
III. Group insurance premiums are exempt from the Goods and Services Tax of 5% for all provinces.

A. All are true
B. All but I
C. All but II
D. All but III
E. None are true
Section 2: Written Answer Questions

Answer 6 questions:

Each of the mandatory questions (total of 20 points)
- 16  5 points
- 17  5 points
- 18  5 points
- 19  5 points

plus

Two of the optional questions (total of 12 points)
- 20  6 points
- 21  6 points
- 22  6 points

Only the first two optional questions answered will be graded.
Question 16

You are the Group pricing actuary for Leeson Life Insurance Company. One of your clients is a 50-life group who wishes they didn’t have to participate in the new Canadian Drug Insurance Pooling Corporation.

I. Explain to the plan sponsor the advantages the Canadian Drug Insurance Pooling Corporation brings them, that they couldn’t have otherwise achieved on their own in the market.

II. Your client has large amount pooling insured with Leeson Life at $20,000 per certificate. Using the group’s claims experience below, calculate the amount of claims pooled in each year (2012-2016) at Leeson and in the industry pool.

Assume the following regarding the Canadian Drug Insurance Pooling Corporation:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Threshold</td>
<td>$50,000</td>
<td>$50,000</td>
<td>$55,000</td>
<td>$60,000</td>
<td>$65,000</td>
</tr>
<tr>
<td>Ongoing Threshold</td>
<td>$25,000</td>
<td>$25,000</td>
<td>$27,500</td>
<td>$30,000</td>
<td>$32,500</td>
</tr>
<tr>
<td>Coinsurance (amount pooled)</td>
<td>85%</td>
<td>85%</td>
<td>85%</td>
<td>85%</td>
<td>85%</td>
</tr>
<tr>
<td>Maximum Pooled Amount</td>
<td>$400,000</td>
<td>$400,000</td>
<td>$500,000</td>
<td>$500,000</td>
<td></td>
</tr>
</tbody>
</table>

Claims Experience:

<table>
<thead>
<tr>
<th>Certificate #</th>
<th>Member</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Employee</td>
<td>$10,000</td>
<td>$12,000</td>
<td>$22,000</td>
<td>$20,000</td>
<td>$18,000</td>
</tr>
<tr>
<td>2</td>
<td>Spouse</td>
<td>$500</td>
<td>$55,000</td>
<td>$45,000</td>
<td>$750</td>
<td>$1,000</td>
</tr>
<tr>
<td>3</td>
<td>Employee</td>
<td>$22,000</td>
<td>$24,000</td>
<td>$15,000</td>
<td>$14,000</td>
<td>$14,000</td>
</tr>
<tr>
<td>3</td>
<td>Spouse</td>
<td>$32,000</td>
<td>$27,000</td>
<td>$25,000</td>
<td>$25,000</td>
<td>$25,000</td>
</tr>
<tr>
<td>4</td>
<td>Employee</td>
<td>$100,000</td>
<td>$200,000</td>
<td>$600,000</td>
<td>$600,000</td>
<td>$600,000</td>
</tr>
<tr>
<td>5</td>
<td>Employee</td>
<td>$5,000</td>
<td>$10,000</td>
<td>$12,000</td>
<td>$10,000</td>
<td>$8,000</td>
</tr>
<tr>
<td>5</td>
<td>Spouse</td>
<td>$500</td>
<td>$500</td>
<td>$1,000</td>
<td>$75,000</td>
<td>$80,000</td>
</tr>
<tr>
<td>5</td>
<td>Child</td>
<td>$32,000</td>
<td>$4,000</td>
<td>$750</td>
<td>$500</td>
<td>$500</td>
</tr>
<tr>
<td>6</td>
<td>Employee</td>
<td>$200</td>
<td>$400</td>
<td>$1,000</td>
<td>$125,000</td>
<td>$0</td>
</tr>
</tbody>
</table>
Question 17

You have the following information on the experience of the block over the past three years:

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Claims</th>
<th>Claims Paid</th>
<th>A/E Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>330</td>
<td>$8,048,700</td>
<td>96%</td>
</tr>
<tr>
<td>2013</td>
<td>300</td>
<td>$7,155,000</td>
<td>105%</td>
</tr>
<tr>
<td>2012</td>
<td>175</td>
<td>$3,937,500</td>
<td>99%</td>
</tr>
</tbody>
</table>

Additionally, you are provided with the following for the upcoming renewal period:

- Risk & Profit Charges: 5.00%
- Expenses (as a % of premiums): 12.00%
- Expenses (as a % of claims): 6.00%
- Manual monthly LTD Rate: 2.10
- Experience monthly LTD Rate: 1.40

Your boss is asking you what premium rate to charge which will be sufficient to cover all your expenses, risk and profit charges, assuming you want to be within 5% of actual claims 95% of the time.

She asks you to:

I. Using limited fluctuation credibility concepts, prepare an analysis of the credibility to apply on the block’s experience and calculate the premium rate to be charged.

II. Outline and discuss factors that complicate the application of traditional credibility models in LTD.
Question 18

George started working for Sunshine Co. on January 1, 2008. On January 1, 2014, as a result of an important promotion, George became eligible for the Executive Group Insurance plan offered by Sunshine Co. which offers the following benefits:

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Volume</th>
<th>Monthly Rate</th>
<th>% premium paid by Sunshine Co.</th>
<th>If on Long-Term Disability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life Insurance</td>
<td>1x earnings</td>
<td>$0.18</td>
<td>100%</td>
<td>Waiver of premium</td>
</tr>
<tr>
<td>Death Benefit</td>
<td>$20,000</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Long-term Disability</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basic</td>
<td>60% of monthly earnings</td>
<td>$1.22</td>
<td>100%</td>
<td>Waiver of premium</td>
</tr>
<tr>
<td>Optional</td>
<td>70% of monthly earnings</td>
<td>$1.45</td>
<td>100% of Basic LTD coverage</td>
<td>Waiver of premium</td>
</tr>
<tr>
<td>Health Care</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>$100</td>
<td>70%</td>
<td>100% paid by Sunshine Co.</td>
<td></td>
</tr>
<tr>
<td>Family</td>
<td>$220</td>
<td>70%</td>
<td>100% paid by Sunshine Co.</td>
<td></td>
</tr>
<tr>
<td>Dental Care</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>$40</td>
<td>50%</td>
<td>100% paid by Sunshine Co.</td>
<td></td>
</tr>
<tr>
<td>Family</td>
<td>$100</td>
<td>50%</td>
<td>100% paid by Sunshine Co.</td>
<td></td>
</tr>
</tbody>
</table>

In 2014, George earned $150,000 per year and lives in Québec. George has a wife of 10 years but does not have any children. He has elected the Optional Long-Term Disability insurance upon enrolment to the plan on January 1, 2014.

I. What is the monthly cost paid by Sunshine Co. and by George for George’s coverage? Detail calculations by benefit.

II. As all Canadians must, George files his family’s 2014 income tax return in spring 2015. What impact did Sunshine Co’s group insurance plan have on George’s provincial and federal taxable income? Please quantify.

After filing his tax return, George has fallen ill on April 1, 2015 and begins receiving Long-term Disability payments on July 1, 2015. George’s condition does not get any better and unfortunately George passes away on December 31, 2015. He did not receive QPP disability benefits.

III. In early 2016, George’s wife and accountant must prepare Georges income taxes for 2015. What impacts do these unfortunate events have on George’s or his wife’s taxable income? Rates have not changed since January 1, 2014.
You are the Manager, Pension and Benefits at ABC Company and several employees have asked you what their benefits would be under Canada’s various social programs.

<table>
<thead>
<tr>
<th>Year</th>
<th>YMPE</th>
<th>El Maximum Yearly Insurable Earnings</th>
<th>$49,500.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>$53,600</td>
<td>Year’s Basic Exemption under CPP</td>
<td>$3,500.00</td>
</tr>
<tr>
<td>2014</td>
<td>$52,500</td>
<td>OAS Claw back Salary</td>
<td>$72,809.00</td>
</tr>
<tr>
<td>2013</td>
<td>$51,100</td>
<td>Maximum OAS Monthly Benefit</td>
<td>$563.74</td>
</tr>
<tr>
<td>2012</td>
<td>$50,100</td>
<td>Maximum GIS Monthly Benefit</td>
<td>$764.40</td>
</tr>
<tr>
<td>2011</td>
<td>$48,300</td>
<td>Maximum CPP Monthly Disability Benefit</td>
<td>$1,264.59</td>
</tr>
<tr>
<td>2010</td>
<td>$47,200</td>
<td>Flat Amount Monthly CPP Disability Benefit</td>
<td>$465.54</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Early Retirement Annual CPP Pension Reduction</td>
<td>6.48%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Late Retirement Annual CPP Pension Increase</td>
<td>8.40%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Late Retirement OAS Monthly Pension Increase</td>
<td>0.60%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age at July 1, 2015</th>
<th>Tim</th>
<th>Kelly</th>
<th>Doris</th>
<th>Bob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Province</td>
<td>MB</td>
<td>ON</td>
<td>BC</td>
<td>AB</td>
</tr>
<tr>
<td>Salary at Current Age</td>
<td>$35,000</td>
<td>$40,000</td>
<td>$80,000</td>
<td>$50,000</td>
</tr>
<tr>
<td>Employee’s average past earnings</td>
<td>$30,000</td>
<td>$32,000</td>
<td>$75,000</td>
<td>$44,000</td>
</tr>
</tbody>
</table>

Assume the following:

- All employees have lived in Canada since birth;
- All employees meet all contribution and eligibility requirements;
- Bob and Doris retire on July 1, 2015;
- All amounts below are effective for 2015; and
- There are no taxes.

I. Using the information provided, calculate the benefits in the table below for the four employees (if applicable).

II. Your boss just sent you an email inquiring about Canada’s EI Premium Reduction Program. Outline the key aspects of this program for her below.
Question 20

Bernard Johnson is an employee of ABC Corporation. He has diabetes and incurs significant recurring costs for prescription medication. Knowing that you are an actuary, he thinks you may help him make his selection for the coming year.

<table>
<thead>
<tr>
<th>Option 1</th>
<th>Deductible</th>
<th>Coinsurance</th>
<th>Maximum Reimbursement</th>
<th>Out-of-pocket Maximum</th>
</tr>
</thead>
</table>
| Hospitalization | None | 100% | Semi-private room  
Unlimited number of days | Not applicable |
| Prescription drugs | $200 | 75% | No limit | $1,000 |
| Health professionals | None | 100% | $25 per treatment  
20 treatments per calendar year for all practitioners combined | Not applicable |
| Other health services | None | 75% | No limit | Not applicable |

<table>
<thead>
<tr>
<th>Option 2</th>
<th>Deductible</th>
<th>Coinsurance</th>
<th>Maximum Reimbursement</th>
<th>Out-of-pocket Maximum</th>
</tr>
</thead>
</table>
| Hospitalization | None | 100% | Semi-private room  
Unlimited number of days | Not applicable |
| Prescription drugs | $100 | 85% | No limit | $500 |
| Health professionals | None | 100% | $30 per treatment  
25 treatments per calendar year for all practitioners combined | Not applicable |
| Other health services | None | 85% | No limit | Not applicable |

<table>
<thead>
<tr>
<th>Option 3</th>
<th>Deductible</th>
<th>Coinsurance</th>
<th>Maximum Reimbursement</th>
<th>Out-of-pocket Maximum</th>
</tr>
</thead>
</table>
| Hospitalization | None | 100% | Semi-private room  
Unlimited number of days | Not applicable |
| Prescription drugs | $100 | 95% | No limit | $500 |
| Health professionals | None | 100% | $35 per treatment  
25 treatments per calendar year for all practitioners combined | Not applicable |
| Other health services | None | 95% | No limit | Not applicable |
Bernard is single and expects to incur the following expenses:
Medication for diabetes: $3,000
Physiotherapy: 15 treatments at $50 per treatment
Other medication: $250
Laser eye surgery: $1,200 *(not covered under option 1, 2 or 3)*

- Bernard lives in the province of Québec and his net income for the purpose of calculating income tax credits is $60,000.
- The tax credit rate is 15% for Federal income tax and 20% for Quebec income tax.
- Bernard’s marginal tax rate is 18% for Federal income tax and 20% for Quebec income tax.

Determine which of the three options would be best for Bernard (considering taxes and income tax credits) by determining his net advantage under each option.
Question 21

You are being interviewed by the sleepy but prestigious consulting firm, Zzzzz Partners. The interviewer provides you with the following information for one of their clients as of January 1, 2015 and then asks you three questions based on the information. The interviewer is trying to test your understanding of the relationship between Source of Earnings calculations and Embedded Value for Group Insurance.

- The client expects to record a pre-tax net loss of 10% of the annual premium for a group policy in the year that the policy is first issued.
- The client targets a net risk and profit margin (excluding liability provisions) of 5% in the 1st renewal year, increasing by 5% each renewal thereafter to a maximum of 25%.
- Each year, new claim liabilities are established of approximately 25% of premiums which include a 10% provision for adverse deviations. MCCSR is usually equal to 15% of premium.
- The client pays renewal commissions of 2.5% of premium and has a tax rate of 25%.
- Balance sheet liabilities are calculated using a 3% discount rate; all assets are expected to earn 4% interest in 2015.

You are told to assume a 10% discount rate for embedded value calculations, that provisions established for claims are run-off within 1 year and discounted post-tax target profits at the end of the year equal $3 million.

I. Calculate the client’s 2015 post-tax target profit for the following three groups:

<table>
<thead>
<tr>
<th>Group</th>
<th>Premium</th>
<th>Policy Issued</th>
<th>Beginning of Period Liabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$1,000,000</td>
<td>January 1, 2015</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>$2,000,000</td>
<td>January 1, 2014</td>
<td>$300,000</td>
</tr>
<tr>
<td>3</td>
<td>$3,000,000</td>
<td>January 1, 2013</td>
<td>$1,500,000</td>
</tr>
</tbody>
</table>

II. Calculate the client’s embedded value at the beginning of 2015. Assume the company targets 190% MCCSR and that the discounted capital cash-flow for all future years is $1,000,000.

III. Briefly explain the differences between Source of Earnings calculations for Group disability business and for Group dental business.
Question 22

You are the consulting actuary for WereGrowing Co. who is looking to purchase ThisistheEnd Enterprises. During the due diligence process, it comes to your attention that ThisistheEnd offers extended health care coverage to their retirees.

As a group insurance consulting actuary, you know that there is a liability held in ThisistheEnd’s books for this plan and that this liability will be considered in the purchase price your client WereGrowing will pay to acquire ThisistheEnd.

I. You’ve requested some documents from ThisistheEnd’s consulting actuaries but have not yet received any information.
   ▪ What are some other benefits that ThisistheEnd might be offering to their current employees and retirees that are considered Employee Benefits under IAS 19 (2011)?

II. You’ve received a copy of the December 31, 2014 year-end disclosure for the Extended Health Care plan produced by ThisistheEnd’s consulting actuaries. You notice that the mortality table and improvement scale used in the calculations is the CPM2014Priv table and improvement scale B.
   ▪ What are some of the adjustments that could have been made to the mortality table?
   ▪ When would adjusting for plan characteristics not be required?

III. In the report prepared by the ThisistheEnd’s consultants, what is the wording for the four statements of opinion required by the CIA Standards of Practice that should be included in the report?

IV. The formal acquisition date is July 1, 2015. The information as of the December 31, 2014 year-end disclosure report is provided below. What is the July 1, 2015 defined benefit obligation and the 2015 expense (6 months)?
   ▪ December 31, 2014 obligation: $5,230,000
   ▪ January 1 to December 31 2015 Service Cost: $346,000
   ▪ Expected Benefit Payments from January 1 to December 31, 2015: $230,000
   ▪ Discount rate as at December 31, 2014: 4.0%
   ▪ Discount rate as at July 1, 2015: 4.0%

V. WereGrowing is planning on closing the post-retirement plan for new retirees once it acquires ThisistheEnd. Outline and describe why many employers are reducing or eliminating retiree benefits, as well as any legal considerations.