Exam RETDAC
Design & Accounting Exam – Canada
MORNING SESSION

Date: Thursday, October 31, 2019
Time: 8:30 a.m. – 11:45 a.m.

INSTRUCTIONS TO CANDIDATES

General Instructions

1. This examination has a total of 100 points. It consists of a morning session (worth 60 points) and an afternoon session (worth 40 points).
   a) The morning session consists of 7 questions numbered 1 through 7.
   b) The afternoon session consists of 6 questions numbered 8 through 13.

The points for each question are indicated at the beginning of the question. Questions 6 and 10 pertain to the Case Study, which is enclosed inside the front cover of this exam booklet.

2. Failure to stop writing after time is called will result in the disqualification of your answers or further disciplinary action.

3. While every attempt is made to avoid defective questions, sometimes they do occur. If you believe a question is defective, the supervisor or proctor cannot give you any guidance beyond the instructions on the exam booklet.

Written-Answer Instructions

1. Write your candidate number at the top of each sheet. Your name must not appear.

2. Write on only one side of a sheet. Start each question on a fresh sheet. On each sheet, write the number of the question that you are answering. Do not answer more than one question on a single sheet.

3. The answer should be confined to the question as set.

4. When you are asked to calculate, show all your work including any applicable formulas.

5. When you finish, insert all your written-answer sheets into the Essay Answer Envelope. Be sure to hand in all your answer sheets because they cannot be accepted later. Seal the envelope and write your candidate number in the space provided on the outside of the envelope. Check the appropriate box to indicate morning or afternoon session for Exam RETDAC.

6. Be sure your written-answer envelope is signed because if it is not, your examination will not be graded.

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Tournez le cahier d’examen pour la version française.

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CASE STUDY INSTRUCTIONS

The case study will be used as a basis for some examination questions. Be sure to answer the question asked by referring to the case study. For example, when asked for advantages of a particular plan design to a company referenced in the case study, your response should be limited to that company. Other advantages should not be listed, as they are extraneous to the question and will result in no additional credit. Further, if they conflict with the applicable advantages, no credit will be given.
1. (7 points)

(a) (4 points) Explain the advantages and disadvantages of phased retirement from the following perspectives:

(i) Employer

(ii) Employee

Company ABC offers a defined benefit pension plan for its full-time and part-time workforce with the following plan provisions:

- Monthly benefit: 2% of wages earned in the year prior to retirement, per year of credited service, up to a maximum of 30 years.
- Benefit commencement: The later of age 65 or full termination of employment.

(b) (3 points) Propose three plan provision changes to Company ABC’s defined benefit plan to encourage utilization of phased retirement.

Justify your response.
2. (6 points) The following risks are associated with a multiemployer defined benefit pension plan:

(i) Mismatch between the contribution rate and cost of accruals

(ii) Decline in hours worked

(iii) Intergenerational transfers

(a) (2 points) Explain each of the above risks.

(b) (2 points) Describe how each of the above risks are measured.

(c) (2 points) Describe employer strategies for mitigating each of the above risks.
3. (6 points)

(a) (2 points) Describe the steps to select an accounting discount rate assumption under International Accounting Standard IAS 19, Rev. 2011 (IAS19).

Company ABC sponsors a defined benefit pension plan and is considering providing a one-time Cost of Living Adjustment (COLA) on January 1, 2020. This will be the first COLA since the plan was established.

(b) (1 point) Describe the accounting treatment for the proposed COLA under IAS 19.

(c) (3 points) Explain how the answer to part (b) would change under

(i) U.S. Accounting Standard ASC 715

(ii) CPA Handbook, Section 3462
4. (10 points) An employer amended its defined benefit pension plan to freeze accrued benefits as of July 1, 2019.

Information for the pension plan is provided below:

<table>
<thead>
<tr>
<th></th>
<th>December 31, 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defined Benefit Obligation</td>
<td>$280,000,000</td>
</tr>
<tr>
<td>Defined Benefit Obligation not reflecting future salary increases</td>
<td>$230,000,000</td>
</tr>
<tr>
<td>Fair Value of Assets</td>
<td>$220,000,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Fiscal 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Cost</td>
<td>$8,000,000</td>
</tr>
<tr>
<td>Service Cost not reflecting future salary increases</td>
<td>$7,500,000</td>
</tr>
<tr>
<td>Net Interest Cost</td>
<td>$2,400,000</td>
</tr>
</tbody>
</table>

Discount rate as of January 1, 2019: 4.0%
Discount rate as of July 1, 2019: 4.5%
Actual asset return January 1, 2019 – June 30, 2019: 3.0%
Benefit payments paid January 1, 2019 – June 30, 2019: $5,000,000
Liability duration after plan freeze: 10

(a) (6 points) Calculate the impact of the plan freeze on the fiscal year 2019 Defined Benefit Cost under International Accounting Standard IAS 19, Rev. 2011 (IAS 19).

Show all work.

(b) (4 points) Compare and contrast the accounting treatment of the plan freeze under IAS 19 and U.S. Accounting Standard ASC 715.

No calculations required.
5.  (10 points)

(a)  (2 points) Explain why a plan sponsor would prefer a defined contribution (DC) pension plan instead of a defined benefit (DB) pension plan.

(b)  (4 points) Explain the rationale behind four different methods of transitioning from a DB to a DC pension plan.

(c)  (3 points) Describe the responsibilities of the following stakeholders with respect to DC pension plans:

(i)  Plan Administrator

(ii) Plan Sponsor

(iii) Plan Member

(d)  (1 point) List the information that should be provided to a member upon termination according to CAPSA Guideline No. 8: Defined Contribution Plans.
6. (8 points) A large international company is considering acquiring the National Oil Company (NOC) in Gevrey.

(a) (3 points) Assess the risks to the acquiring company of relying solely on NOC’s publicly available financial statements when reviewing NOC’s pension plan for the potential company acquisition.

(b) (2 points) Describe the due diligence process that the acquiring company’s actuary should follow when reviewing NOC’s pension plan for the potential company acquisition.

The acquiring company uses the following actuarial assumptions for their accounting valuation.

Discount rate: 3.50%
Salary Scale: 3.25%
Mortality: 2014 Canadian Pensioner Mortality Table with generational improvements
Termination: None assumed
Retirement Age: Retirement age that maximizes the value of the pension
Asset Valuation Method: Market Value
Expenses: Assumed to be paid from the fund

(c) (3 points) Evaluate the funded status impact of adopting the acquiring company’s accounting assumptions to measure the NOC Full-Time Salaried Pension Plan assets and liabilities under International Accounting Standard IAS 19, Rev. 2011.

No calculations required.
7. (13 points) A 40 year-old individual is deciding between two employment offers. Both companies offer the following:

- Annual target bonus: 25% of base salary
- Defined Contribution (DC) pension plan

You are provided with the following DC pension plan design features for each company:

<table>
<thead>
<tr>
<th>Plan Feature</th>
<th>Company A</th>
<th>Company B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eligibility</td>
<td>Immediate</td>
<td>Two year waiting period</td>
</tr>
<tr>
<td>Vesting</td>
<td>Full vesting after five years of service</td>
<td>Immediate vesting</td>
</tr>
<tr>
<td>Fixed Employer Contribution</td>
<td>6% of base salary</td>
<td>4% of base salary plus bonus</td>
</tr>
<tr>
<td>Required Employee Contribution</td>
<td>No required contribution</td>
<td>1% of base salary plus auto-escalation of 1% after each year of service to a maximum of 3%</td>
</tr>
<tr>
<td>Employer Matching Contribution</td>
<td>100% match on first 5% of employee contribution</td>
<td>200% match on first 3% of employee contribution</td>
</tr>
<tr>
<td>Investment Options</td>
<td>Choice of 15 passive and active investment funds with varying risk levels. The default fund is a balanced fund with a target annual return of 5%.</td>
<td>100% invested in a savings account earning 2% interest per annum.</td>
</tr>
<tr>
<td>Retirement Benefit Option</td>
<td>Lump sum only</td>
<td>Choice of lump sum, fixed annuity or multi-year drawdown options</td>
</tr>
</tbody>
</table>

(a) (4 points) Compare and contrast each plan design feature’s ability to generate retirement savings.

(b) (2 points) Propose four enhancements to Company A’s plan design to increase retirement savings.

Justify your response.
7. **Continued**

You are provided with the following additional information:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Age at Retirement</td>
<td>65</td>
</tr>
<tr>
<td>Base Salary at Current Age</td>
<td>$80,000</td>
</tr>
<tr>
<td>Salary Scale</td>
<td>2.5%</td>
</tr>
<tr>
<td>Annual Bonus Paid</td>
<td>Target</td>
</tr>
<tr>
<td>Assumed Annual Return on DC plan investments</td>
<td>Company A: 6.0%</td>
</tr>
<tr>
<td></td>
<td>Company B: 2.0%</td>
</tr>
<tr>
<td>Lump Sum Conversion Factor at Age 65</td>
<td>15</td>
</tr>
<tr>
<td>Employee Contribution</td>
<td>Minimum required to receive the maximum company matching contribution</td>
</tr>
<tr>
<td>Assumed Timing of Contributions</td>
<td>End of year</td>
</tr>
</tbody>
</table>

(c) *(4 points)* Calculate the projected replacement ratio at retirement for:

(i) Company A

(ii) Company B

Show all work.

(d) *(3 points)* Recommend which employment offer the individual should accept.

Justify your response.