
SOCIETY OF ACTUARIES
Design & Accounting Exam – Canada

Exam RETDAC

AFTERNOON SESSION

Date: Thursday, October 30, 2014

Time: 1:30 p.m. – 3:45 p.m.

INSTRUCTIONS TO CANDIDATES

General Instructions

1. This afternoon session consists of 6 questions numbered 8 through 13 for a total of 40 points. The points for each question are indicated at the beginning of the question. Questions 12 and 13 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.

Tournez le cahier d'examen pour la version française.

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.

****BEGINNING OF EXAMINATION****

Afternoon Session
Beginning with Question 8

- 8.** (12 points) XYZ Company has extra cash and is trying to decide the best use for this money. XYZ sponsors a registered defined benefit pension plan that is underfunded. XYZ also sponsors a non-registered pension plan (SERP) which pays benefits above the Canadian tax limits.

XYZ is considering the following options:

Option 1: Make a large lump sum contribution to the registered pension plan

Option 2: Pay a one-time payroll bonus that would be immediately taxable to the employees

Option 3: Fund the SERP arrangement

Discuss the advantages and disadvantages of each of these options from the perspectives of the following stakeholders:

- (i) Active employees
- (ii) Inactive members of both plans
- (iii) Shareholders
- (iv) XYZ

- 9.** (4 points) Your client has an increasing number of employees whose benefits under a registered defined benefit pension plan (RPP) are subject to the Income Tax Act (ITA) maximums and would like to implement a non-registered pension plan (SERP) to help ensure adequate post-retirement income.

The benefit formula for the existing RPP is 1.75% of final 3-year average earnings per year of service.

Your client has proposed a SERP benefit paying \$2,000 per year for each year that the employee exceeds his or her performance goals.

- (a) (2 points) Describe a salary deferral arrangement under the ITA.
- (b) (2 points) Assess whether your client's proposed SERP qualifies as a "pension plan" for salary deferral arrangement purposes.

- 10.** (8 points) Based on the Canadian Institute of Actuaries' Educational Note: Financial Risk Inherent in Multi-Employer Pension Plans and Target Benefit Pension Plans,

- (a) (2 points) Describe a Target Benefit Pension Plan (TBPP).
- (b) (3 points) Describe the risks inherent in TBPPs.
- (c) (3 points) Describe ways in which the risks identified in part (b) could be mitigated.

- 11.** (5 points) A Canadian corporation implements a defined benefit pension plan that provides an unreduced benefit of 1% of final average salary per year of service payable at normal retirement age (65), indexed annually in line with the Consumer Price Index.

Assess the benefit adequacy of this plan given the availability of government programs.

Question 12 pertains to the Case Study.

- 12.** (5 points) You are the consulting actuary for Canadian-based ABC. ABC acquires XYZ through an asset purchase. Both companies sponsor Ontario-registered defined benefit pension plans and non-registered pension plans similar to those of NOC.
- (a) (2 points) Describe the objectives of the due diligence stage in the merger, as they pertain to the benefits and compensation programs only.
 - (b) (3 points) Describe the integration issues that ABC should consider as they pertain to the benefits and compensation programs only.

Question 13 pertains to the Case Study.

13. (6 points) NOC has the following workforce management objectives:

- Control costs
- Attract young employees
- Retain experienced employees

Recommend design changes to the NOC Full-Time Hourly Union Pension Plan that will help them achieve the above objectives while maintaining a defined benefit component.

Justify your response.

****END OF EXAMINATION****
Afternoon Session

USE THIS PAGE FOR YOUR SCRATCH WORK