
SOCIETY OF ACTUARIES
Design & Accounting Exam – Canada

Exam RETDAC

AFTERNOON SESSION

Date: Thursday, April 30, 2015

Time: 1:30 p.m. – 3:45 p.m.

INSTRUCTIONS TO CANDIDATES

General Instructions

1. This afternoon session consists of 5 questions numbered 9 through 13 for a total of 40 points. The points for each question are indicated at the beginning of the question. Questions 10 and 11 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 9

9. (5 points)

- (a) (2 points) List the advantages and disadvantages of providing company stock as an investment option in Group RRSPs.
- (b) (3 points) Describe the factors contributing to poor diversification in Group RRSPs from a behavioral finance perspective.

Question 10 pertains to the Case Study.

- 10.** (12 points) NOC has offered an early retirement window to active participants of the National Oil Full-Time Salaried Pension Plan who have attained at least age 50 with 10 or more years of service.

Employees who accept the window will receive both additional service for purposes of determining their accrued benefit and enhanced early retirement reduction factors.

500 employees accepted the early retirement window offer and retire on January 1, 2015.

For the 500 employees who accepted the window you are given:

Defined Benefit Obligation (DBO) prior to window	\$140,000,000
2015 service cost prior to window	\$10,000,000
2015 expected benefit payments prior to window	\$0
DBO with immediate decrement	\$150,000,000
DBO with immediate decrement and enhanced window benefits	\$225,000,000
2015 expected benefit payments with immediate retirement and enhanced window benefits	\$17,000,000

Assume that this is a 2015 event and that there are no changes in 2015 expected contributions.

- (a) (8 points) Calculate the revised 2015 Defined Benefit Cost and Other Comprehensive Income (OCI) under international accounting standard IAS19, rev 2011.

Show all work.

- (b) (4 points) Describe in words how the answer to (a) would change under U.S. accounting standard ASC 715.

No calculations are required.

Question 11 pertains to the Case Study.

- 11.** (9 points) The government of Gevrey is considering increasing the limit on periodic pension payments from \$3,000 to \$4,000 per year for each year of service.

Describe the impact of the increase on each of NOC's pension plans taking into consideration:

- the effect on plan participants;
- plan sponsor options with respect to plan design; and
- accounting implications.

- 12.** (8 points) A Canadian defined benefit pension plan sponsor with participants in multiple jurisdictions is considering converting the plan into a defined contribution plan for all years of service.

(a) (6 points) Describe the regulatory considerations with respect to the following:

- actuarial basis;
- funded position of the plan; and
- portability of benefits.

(b) (2 points) Discuss the impact on the plan participants' RRSP contribution room assuming the plan has a surplus on both a going concern and solvency basis.

- 13.** (6 points)

(a) (3 points) Describe the information required in order to perform a mortality experience study.

(b) (3 points) Explain how to develop a best-estimate mortality assumption.

****END OF EXAMINATION****

Afternoon Session

USE THIS PAGE FOR YOUR SCRATCH WORK

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