

Exam RETDAU

MORNING SESSION

Date: Thursday, November 1, 2018

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 8 questions numbered 1 through 8.
 - b) The afternoon session consists of 5 questions numbered 9 through 13.

The points for each question are indicated at the beginning of the question. Questions 4 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 RETDAU.
6. Be sure your written-answer envelope is signed because if it is not, your examination will not be graded.

Canadian version of this exam is recognized by the Canadian Institute of Actuaries.

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****
Morning Session

- 1.** (6 points) Describe eight health care cost management strategies a company can implement for a pre-65 retiree health benefit program that do not directly shift costs to retirees.

2. (8 points)

- (a) (3 points) Describe risks faced by workers not covered by a retirement plan.

Country ABC's government is planning to require employers, that do not currently sponsor a retirement plan, to offer their employees a pooled defined contribution pension plan.

The following are the proposed plan provisions:

Eligibility	Voluntary after 2 years of service
Vesting	100% after 2 years
Employee Contributions	Fixed at 2% of pay
Employer Contributions	None
Investment Return	Fixed return of 2% per year
Loans/Withdrawals	Permitted
Benefit on Termination or Retirement	Account balance paid as a lump sum
Benefit on Death	Account balance paid to named beneficiary

- (b) (2 points) Evaluate the effectiveness of the proposed plan provisions with respect to providing adequate retirement security for plan participants.
- (c) (3 points) Recommend changes to the proposed plan provisions to improve retirement security.

3. (8 points) Company XYZ's pension plan does not provide early retirement subsidies and is substantially underfunded. To reduce their pension liability, Company XYZ is considering offering an early retirement window to active employees with 20 years of service. The proposed retirement window will have the following features:

- Lump sum option; and
- Unreduced early retirement benefit.

(a) (4 points) Critique the proposed early retirement window.

As an alternative, Company XYZ has proposed the following:

- Allow employees to work 50% of their current schedules and receive 60% of their current pay;
- Employees will receive the same pension and non-pension benefits as if they work full-time;
- Employees must be 55 with 10 years of service in order to participate in the program; and
- Employees may work for two years, after which they must retire, and receive a pension under normal plan terms.

(b) (4 points) Evaluate this proposal from the perspectives of both Company XYZ and the active employees.

Question 4 pertains to the Case Study.

4. (9 points)

- (a) (4 points) Describe the following methods used to set an expected return on asset assumption:
 - (i) Building Block Approach
 - (ii) Historical Method
 - (iii) Forward Looking Assumptions
- (b) (2 points) Describe the characteristics of a reasonable assumption according to Actuarial Standard of Practice No. 27.
- (c) (3 points) Critique the reasonableness of the following accounting assumptions as of January 1, 2018 for the National Oil Full-Time Salaried Pension Plan.
 - (i) Mortality
 - (ii) Turnover
 - (iii) Retirement Age

5. (6 points)

- (a) (3 points) Describe the advantages and disadvantages of participating in a Multi-Employer Pension Plan (MEPP) from an employer's perspective.
- (b) (1 point) Explain the impact of a significant decline in hours worked from the perspective of employers participating in the MEPP.
- (c) (2 points) Describe recent developments in the U.S. to address MEPPs certified as "Critical and Declining".

6. (10 points) Company XYZ sponsors a defined benefit pension plan with accounting disclosures reported under U.S. Accounting Standard ASC 715 (ASC 715).

During 2018, Company XYZ offered a lump sum window to their deferred vested members. A large number of members elected to receive a lump sum from the pension plan.

- (a) (1 point) Define a settlement under ASC 715.
- (b) (1 point) List events that trigger a settlement under ASC 715.

You are given the following:

	December 31, 2017
Projected Benefit Obligation (PBO)	\$(25,391,000)
Market Value of Assets	\$ 23,376,000
Funded Status	\$ (2,015,000)
Accumulated Other Comprehensive Income (AOCI)	
Net Transition (Asset) Obligation	\$ -
Prior Service Cost	\$ -
Net (Gain)/Loss	\$ 4,500,000
Components of 2018 Net Periodic Benefit Cost	
Service Cost	\$ 85,000
Interest Cost	\$ 800,000
Expected Return on Plan Assets	\$(1,211,000)
Amortization of Unrecognized:	
Transition (Asset)/Obligation	\$ -
Prior Service Cost	\$ -
Gain/Loss	\$ 131,000
2018 Net Periodic Benefit Cost (Income)	\$ (195,000)

6. Continued

You are also given the following additional information:

2018 Pension Annuity Payments	\$ 385,000
2018 Lump Sum Payments from the Early Retirement Window	\$ 2,500,000
2018 Contributions	\$ 3,625,000
At December 31, 2018	
Market Value of Assets after Lump Sum Payments	\$24,152,000
Total PBO after Lump Sum Payments	\$23,300,000
PBO for Members who were paid Lump Sums	\$ 2,000,000

- (c) (4 points) Calculate the settlement charge in 2018 assuming all lump sums are paid on December 31, 2018.
- Show all work.
- (d) (2 points) Calculate the Accumulated Other Comprehensive Income at December 31, 2018.
- Show all work.
- (e) (2 points) Describe the accounting implications of the lump sum window under International Accounting Standard IAS 19, Rev. 2011. No calculations are necessary.

7. (6 points) Mr. Smith has been a Fellow of the Society of Actuaries (SOA) since 2015. His total actuarial experience has been five years entirely in group insurance. Mr. Smith established his own one person pension consulting firm in 2017.

In 2017, Mr. Smith was engaged to perform actuarial services for his first client, Company ABC. Company ABC sponsors a defined benefit pension plan. Mr. Smith prepared the January 1, 2017 actuarial valuation report but did not release it to Company ABC due to unpaid invoices.

In 2018, Company ABC engaged another actuary to perform the actuarial services instead of Mr. Smith. The new actuary asked Mr. Smith for relevant information in order to provide actuarial services to the client. Mr. Smith refused to provide the information stating that he was not paid for his actuarial services and the new actuary would not understand the confidential and proprietary information contained in January 1, 2017 valuation report.

- (a) (4 points) Describe Mr. Smith's potential violations of the SOA Code of Professional Conduct.
- (b) (2 points) Recommend a course of action for Mr. Smith to resolve each potential violation.

8. (7 points)

- (a) (4 points) Describe the features of defined ambition plans in the Netherlands.
- (b) (3 points) Describe the strengths and weaknesses of defined ambition plans as compared to traditional defined contribution plans.

****END OF EXAMINATION****
Morning Session

USE THIS PAGE FOR YOUR SCRATCH WORK