
SOCIETY OF ACTUARIES
Group and Health Core Exam – U.S.

Exam GHCORU

MORNING SESSION

Date: Wednesday, October 30, 2013

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 6 questions numbered 1 through 6.
 - b) The afternoon session consists of 6 questions numbered 7 through 12.The points for each question are indicated at the beginning of the question.
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 since 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 GHCORU.
6. Be sure your written-answer envelope is signed because if it is not, your examination will not be graded.

****BEGINING OF EXAMINATION****
Morning Session

- 1.** (10 points) You are an actuarial consultant to State XYZ's Health Benefit Exchange Advisory Committee. You have been asked to educate them on the topic of anti-selection.
- (a) (2 points) Provide an example of how benefit plan offerings can create anti-selection in the post Affordable Care Act (ACA) world from the perspective of a carrier on the Exchange who:
 - (i) has one competitor only on the Exchange
 - (ii) has one competitor only off the Exchange
 - (b) (2 points) Describe ACA provisions that help control anti-selection against the Exchange.
 - (c) (2 points) Describe ACA provisions that help control anti-selection among carriers on the Exchange.
 - (d) (2 points) Describe state provisions that can help mitigate the risk of anti-selection.
 - (e) (2 points) Identify consumer protection features added by ACA.

2. (13 points) You are a consulting actuary working for Suspenders, Inc, assisting with Suspenders' retiree prescription drug offering for the next calendar year. Suspenders offers a drug plan directly to its retirees and receives the retiree drug subsidy from the federal government. Next year's retiree benefits for the defined standard Medicare Part D plan, as well as Suspenders' plan for next year are given below. The actual experience incurred under Suspenders' retiree drug plan is also given.

Benefit Plan Information

	Part D Plan	Suspenders' Retiree Plan
Premium	\$75	\$0
Deductible	\$300	\$500
Initial Coverage Coinsurance %	25%	7%
Initial Coverage Limit	\$3,000	\$6,000
Coverage Gap Coinsurance %	70%	7%
Coverage Gap Limit	\$6,000	\$6,000
Catastrophic % Coinsurance	5%	5%

Suspenders' Prior Year Claims Data

Aggregate Member-level Claims	Number of Members	Average Claims Cost PMPY of Members in Tier	Part D Gross Value	Plan Gross Value
\$0 - \$300	40	\$210	\$0.00	\$0.00
\$300 - 500	30	\$450	\$15.70	\$0.00
\$1,000 - \$3,000	70	\$1,750	\$354.07	\$378.49
\$3,000 - \$6,000	55	\$4,210	\$610.88	\$882.63
\$6,000 +	20	\$7,100	\$369.30	\$53.95

- (a) (1 point) Describe the requirements for offering prescription drug benefits to retirees via:
- (i) an employer group waiver plan, and
 - (ii) a retiree drug subsidy.
- (b) (5 points) Determine whether Suspenders' retiree drug plan is eligible for the retiree drug subsidy next year using the prior year claims data. Show your work.

2. Continued

- (c) (1 point) A colleague comments to you that your initial analysis of Suspenders' eligibility for the retiree drug subsidy may be flawed because it doesn't include the impact of trend. Respond to your colleague's criticism, and list any key items omitted from your initial analysis.
- (d) (1 point) Describe common challenges in trend analysis.
- (e) (5 points) Determine Suspenders' plan eligibility for the retiree drug subsidy next year assuming:
- A 5% total two year trend,
 - All Defined Standard Part D and Suspenders' Retiree Plan benefit parameters remain the same.

Briefly comment on how these results compare to the determination in part (b) above. Show your work.

3. (13 points) You are a consulting actuary specializing in retiree health benefits. You have been approached by the CEO of Greenstone, Inc. to assist in determining the company's future retiree benefit plan strategy.

Currently, Greenstone offers two options to its retirees:

- an employer-customized benefit that pays secondary to fee-for-service Medicare with a premium of \$120 PMPM
- standardized Medicare Supplement Plan K with a premium of \$50 PMPM

The key benefits for the customized option are outlined below:

Inpatient Cost Share	\$500/admit
Skilled Nursing Facility Cost Share	\$30 days 1-20, \$80 days 21-100
Primary Care Physician Copay	\$5/visit
Specialty Physician Copay	\$20/visit

Note that Greenstone currently follows the standard COB method when this plan option pays secondary to fee-for-service Medicare.

For reference, the fee-for-service Medicare benefit information for next year is listed below:

Part A Deductible	\$1,200
Part B Deductible	150
Inpatient Coverage after Part A Deductible	\$0 Cost share
Skilled Nursing Facility Coverage after Part A Deductible**	\$0 cost share days 1-20, \$140 days 21-100
Part B Cost Share After Deductible	20%

**Assume Skilled Nursing Facility is under the Part A deductible and any specific cost share with respect to Skilled Nursing Facility happens after deductible is met.

The CEO's aunt is a recent retiree from Greenstone, and in addition to the services being asked, the CEO has asked for your assistance in helping her make the best benefit choice in the next plan year. Her expected costs and services next year are in the chart below:

Inpatient Stay	1 admission of 3 days, \$25,000 total cost
Skilled Nursing Facility Stay*	4 Days, \$1,600 total cost
Primary Care Physician Visits	3 Visits, \$450 total cost
Specialty Physician Visits	4 Visits, \$1,000 total cost

*Assume the Skilled Nursing Facility stay happens after the inpatient stay.

3. Continued

- (a) *(1 point)* State reasons employers offer retiree group benefits.
- (b) *(2 points)* Identify the key types of services provided by Medicare Parts A and B.
- (c) *(7 points)* Determine which plan option will result in the lowest total out-of-pocket cost for the CEO's aunt in the next calendar year based on her expected expenses. Show your work.
- (d) *(3 points)* The CEO is interested in understanding the value of other coordination of benefit methods with FFS Medicare for the customized plan option. Using the aunt's expected expenses as an example, calculate the change in the plan's costs from switching to the other methods. Show your work.

- 4.** (7 points) You are an employee benefits actuary working for SpiritCorp, a company that offers health benefits to its employees. The VP of HR is trying to get a better understanding of some recent issues with their coverage, and has asked you to assist her in understanding how U.S. federal regulations will impact each of these issues. In order to ensure privacy, she has framed these issues in the forms of scenarios.

Scenario 1: A newly-hired Spirit employee was laid off 11 months ago from another employer. The employee was eligible for and elected to have COBRA coverage from his prior employer for the first 6 months following his layoff. After his COBRA ended, the employee was uninsured before being hired at Spirit. This employee needs a surgery, and the need for this surgery was discovered during his COBRA period.

Scenario 2: A current Spirit employee has an annual salary of \$90,000. Currently Spirit provides this employee first-dollar health insurance coverage and pays the entire premium of \$400 per month. This employee is expected to have a total of \$8,000 in medical expenses every year. This employee has a constant tax rate of 15%.

- (a) (2 points) Describe the portability provisions of the two major U.S. regulations affecting group health plan portability.
- (b) (2 points) Explain whether the newly-hired employee under Scenario 1 above would be subject to a pre-existing condition exclusion for his surgery citing specific laws and regulations, assuming:
- (i) the year of hire is 2013
 - (ii) the year of hire is 2014.
- (c) (3 points) Calculate the annual salary adjustment necessary under Scenario 2 to give the employee equal compensation, net of medical expenses and applicable tax impacts, if this employee is no longer offered health insurance in 2014. Show your work.

5. (13 points) You are the consulting actuary for Brother John, a Canadian insurance company that is interested in purchasing the LTD block of business of a U.S. insurance company.

You are given the following financial information for the most recent three years as well as the forecast for the current year (2013) and the next two years.

U.S. GAAP Financial Statement

	2010	2011	2012	2013F	2014F	2015F
Total Premium		\$1,000,000	\$1,200,000	\$1,500,000	\$2,000,000	\$2,700,000
Paid Claims		\$300,000	\$400,000	\$600,000	\$790,000	\$950,000
Expenses		\$35,000	\$45,000	\$75,000	\$85,000	\$100,000
Change in Reserves		\$500,000	\$650,000	\$700,000	\$1,000,000	\$1,500,000
Taxes		\$50,000	\$30,000	\$40,000	\$35,000	\$50,000
Net Income		\$115,000	\$75,000	\$85,000	\$90,000	\$100,000
Year-End Assets	\$1,000,000	\$1,615,000	\$2,590,000	\$3,475,000	\$4,765,000	\$6,765,000
Year-End Liabilities	\$200,000	\$700,000	\$1,600,000	\$2,400,000	\$3,600,000	\$5,500,000
Year-End Retained Earnings	\$800,000	\$915,000	\$990,000	\$1,075,000	\$1,165,000	\$1,265,000

- (a) (2 points) Describe how statutory reporting differs from GAAP in the U.S. and Canada.
- (b) (5 points) Compare the sustainable and actual growth rates for each of 2011, 2012 and 2013F, including an explanation of each component of sustainable growth and its impact on overall growth during the 3-year period. Show your work.
- (c) (2 points) Describe strategies for Brother John to address differences between sustainable and actual growth.
- (d) (4 points) Critique the forecast provided by the company in light of the results of the last three years and prepare a list of questions for management to justify the forecast.

- 6.** (4 points) You are the actuary for Uslandia Insurance Company, a US company that issues group life and a variety of accident & health (A&H) policies.
- (a) (2 points) Briefly describe the meaning of these terms in the context of GAAP financial reporting for your company with regard to A&H products:
- (i) Long-duration contract
 - (ii) Short-duration contract
 - (iii) Long-term benefits
 - (iv) Short-term benefits
- (b) (2 points) For each contract type, identify two A&H or group life products that have:
- (i) Long-term benefits
 - (ii) Short-term benefits

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

USE THIS PAGE FOR YOUR SCRATCH WORK

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