

Exam GHFVCU

Date: Tuesday, May 4, 2021

INSTRUCTIONS TO CANDIDATES

General Instructions

1. This examination has 8 questions numbered 1 through 8 with a total of 60 points.

The points for each question are indicated at the beginning of the question. Question 4 pertains to the Case Study.

2. 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 provided in this document.

Written-Answer Instructions

1. Each question part or subpart should be answered either in the Word document or the Excel file as directed. Graders will only look at work in the indicated file.
 - a) In the Word document, answers should be entered in the box marked ANSWER. The box will expand as lines of text are added. There is no need to use special characters or subscripts (though they may be used). For example, β_1 can be typed as beta_1 (and ^ used to indicate a superscript).
 - b) In the Excel document formulas should be entered. Performing calculations on scratch paper or with a calculator and then entering the answer in the cell will not earn full credit. Formatting of cells or rounding is not required for credit.
 - c) Individual exams may provide additional directions that apply throughout the exam or to individual items.
2. The answer should be confined to the question as set.
3. Prior to uploading your Word and Excel files, each file should be saved and renamed with your five-digit candidate number in the filename.
4. The Word and Excel files that contain your answers must be uploaded before time expires.

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Navigation Instructions

Open the Navigation Pane to jump to questions.

Press Ctrl+F, or click View > Navigation Pane:



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.

(3 points)

- (a) (1 point) List “the triple aim” of health policy.

ANSWER:

- (b) (2 points) Compare and contrast how health care is financed between US and two of the following four countries:

- (i) Canada
- (ii) Germany
- (iii) England
- (iv) Netherlands

ANSWER:

2.

(12 points) Company X has concerns about the high cost of a small group within its retiree population. You are a consulting actuary hired to review its retiree health plan.

- (a) (2 points) Describe common underwriting considerations with regards to retiree health plans.

ANSWER:

You are given the following information about the retiree health plan:

- All retirees are enrolled in Medicare with a \$185 deductible and 20% coinsurance.
- Company X currently offers a 50% coinsurance plan with no deductible under a standard coordination of benefits with Medicare.
- 2021 trend is assumed to be 5%.
- 2020 Retiree Medical Information is provided below:

Group	Group Size	2020 Average Medical Costs
A	550	\$100
B	445	\$1,000
C	5	\$100,000

- (b) (2 points) Calculate the 2020 company cost. Show your work.

The response for this part is to be provided in the Excel spreadsheet.

Company X is adding a \$1,000 annual deductible to their plan design next year, but due to a new state mandate the deductible will only apply under standard COB.

- (c) (5 points) Recommend whether Company X should change their coordination of benefits to the exclusion approach in 2021. Justify your answer. Show your work.

The response for this part is to be provided in the Excel spreadsheet.

2. Continued

Company X informs you that 5 members from Group B have been identified as potential high cost claimants for 2021. You're asked to include them in Group C assuming no change to the average costs for any group.

- (d) (3 points) Draft a memorandum to the client explaining your decision on whether to keep or change your recommendation from part (c). Justify your answer. Show your work.

The response for this part is to be provided in the Excel spreadsheet.

3.

(3 points)

- (a) (1 point) List and describe three types of measures US regulators use to assess insurer solvency.

ANSWER:

Risk Based Capital by coverage type is as follows:

Coverage	% of earned premium
Comprehensive	15.0%
Dental & Vision	7.6%
Medicare	25.1%
Other	13.0%

Your state has a 200% of Risk Based Capital threshold for corrective actions.

You are given the following company information:

- Company only sells Medicare and Dental & Vision coverages
- Earned premium for Medicare = \$15M
- Earned premium for Dental & Vision = \$3M
- Asset = \$15M
- Shareholder's Equity = \$5M
- Total Adjusted Capital = \$7M

- (b) (2 points)

- (i) (1 point) Assess the company's solvency position. Show your work.
- (ii) (1 point) Recommend any possible actions for the company due to the solvency position in part i). Justify your answer.

<i>The response for this part is to be provided in the Excel spreadsheet.</i>

Question 4 pertains to the Case Study

4.

(14 points) You are an actuary at Royale Health. Due to volatility in medical claim costs, Royale Health’s large group employer clients with ASO plan designs are evaluating options to take on less risk.

To address this need, Royale Health has launched a new product, called “Shared Returns” (SR).

Under the SR product, Royale Health takes responsibility for any claims risk. However, it establishes a loss ratio “corridor”:

- If an employer’s loss ratio for a policy year falls below a “floor” of X%, the employer receives a refund from Royale Health at the end of that year to bring the loss ratio back up to X%.
- If an employer’s loss ratio for a policy year exceeds a “ceiling” of Y%, any potential refund for the following year is applied to the prior year’s loss ratio to bring it back down to Y%. Any remaining refund is then distributed to the employer.

(a) (2 points) Describe some benefits and drawbacks of this new product for:

- (i) (1 point) Royale Health
- (ii) (1 point) A large group employer client

ANSWER:

You are provided with the following information for Royale Health’s clients that have the SR product:

	Client A	Client B	Client C	Client D	Client E
Insurer's Expected Annual Loss Ratio	85%	85%	85%	95%	80%
Loss Ratio Floor	80%	80%	80%	90%	75%
Loss Ratio Ceiling	90%	90%	90%	100%	85%

(b) (4 points) Calculate the refund that Royale Health owes to its clients on 12/31/2019 for calendar year 2019. Show your work.

The response for this part is to be provided in the Excel spreadsheet.

4. Continued

- (c) (2 points) Assess the impact of the 2019 refund on Royale Health's:
- (i) (1 point) Income Statement
 - (ii) (1 point) Balance Sheet

ANSWER:

- (d) (4 points) Calculate the Refund Reserve for Royale Health as of 06/30/2020 using:
- (i) (2 points) The year-to-date method
 - (ii) (2 points) The pro-rated ultimate method

Show your work.

The response for this part is to be provided in the Excel spreadsheet.

- (e) (2 points) Explain four alternatives that Royale Health can use to reduce its large group employer clients' risk. Justify your response.

ANSWER:

5.

(8 points) You are the Medicaid Actuary for a Managed Care Organization (MCO) operating in Snowy State.

Snowy State recently received approval for a §1115 waiver that allows their Medicaid program to remove Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) eligibility for 19-20 year-olds. This will require rate cells to be structured differently than in the past.

(a) (1 point) Describe the EPSDT benefit and its purpose.

ANSWER:

(b) (1 point) Explain public policy reasons why this waiver approval necessitates a change in rate cells.

ANSWER:

The current and projected enrollment in the impacted rate cells is distributed as follows:

Age range	Statewide member months	Your MCO share of member months
16-18	6,000	30%
19-20	2,000	35%
21-25	4,000	25%
Total	12,000	

Projected statewide medical costs per member per month (PMPM) are distributed by cohort as follows:

Age range	Medical (excluding EPSDT)	EPSDT portion
16-20	\$ 181.42	\$ 2.50
21-25	250.45	-

Snowy State’s actuary is pricing to a 90% medical loss ratio (MLR).

- Medical costs PMPM excluding EPSDT for 16 to 18 year olds average \$172.35.
- EPSDT costs are uniform for 16 to 20 year olds.

5. Continued

- (c) (2 points) Calculate the projected 19-25 year old statewide medical cost without EPSDT. Show your work.

The response for this part is to be provided in the Excel spreadsheet.

- (d) (2 points) Calculate the total statewide composite PMPM, including EPSDT and non-benefit costs.

(i) (1 point) Before the waiver approval

(ii) (1 point) After the waiver approval

Show your work.

The response for this part is to be provided in the Excel spreadsheet.

- (e) (2 points) Calculate your MCO's statewide composite PMPM, including EPSDT and non-benefit costs.

(i) (1 point) Before the waiver approval

(ii) (1 point) After the waiver approval

Show your work.

The response for this part is to be provided in the Excel spreadsheet.

6.

(7 points) You are writing a white paper on the individual insurance market in 2014.

- (a) (2 points) Describe four ways that the Affordable Care Act (ACA) impacted Individual Rates.

ANSWER:

- (b) (1 point) Describe how the following Actuarial Standards of Practice applied to your company's rate filings for individual plans:

- (i) ASOP 8
- (ii) ASOP 50

ANSWER:

An individual was looking for coverage on the Exchange in 2014. The following information is provided:

- Individual's age: 44
- 2013 Federal Poverty Level (FPL): \$11,490
- 2014 Federal Poverty Level: \$11,670
- Individual's 2013 Income: \$31,597
- Individual's Projected 2014 Income: \$35,010
- No Coverage was offered through their employer

The following plans were available to this member on the Exchange:

Metal Tier	Monthly Premium Rate
Bronze	\$250.11
Bronze	\$277.14
Silver	\$295.22
Silver	\$324.88
Silver	\$341.11
Gold	\$350.11
Gold	\$372.11
Platinum	\$404.10

6. Continued

Maximum premium contribution by Federal Poverty Level (FPL) was defined as below:

FPL Level	Maximum % of Income
100 – 133%	2.00%
133%	3.00%
150%	4.00%
200%	6.30%
250%	8.05%
300 – 400%	9.50%

- (c) (2 points) Calculate the premium rates that this individual was required to pay for the lowest cost option at each metallic level. Show your work.

The response for this part is to be provided in the Excel spreadsheet.

- (d) (2 points) Describe two other types of premium and cost sharing assistance available in all post-ACA markets and the requirements to qualify for each program under ACA in 2014.

ANSWER:

7.

(9 points) You are an actuary at XYZ Insurance (XYZ), a new company that started its operations on January 1, 2020. You are provided with the following information:

At month end	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20
Collected Premium	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
Advance Premium	\$200	\$300	\$100	\$200	\$100	\$300	\$200	\$100	\$300
Due Premium	\$100	\$200	\$300	\$400	\$100	\$100	\$100	\$300	\$200
Statutory Policy Reserve	\$1000	\$1100	\$1200	\$1300	\$1400	\$1500	\$1600	\$1700	\$1800
\$100,000 in Acquisition Expense at Jan 1st that the company is planning to defer									

Paid Claims		Payment Month								
		Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20
Incurred Month	Jan	\$200	\$300	\$250	\$50	\$50	\$0	\$50	\$0	\$0
	Feb		\$100	\$500	\$100	\$200	\$50	\$0	\$100	\$0
	Mar			\$200	\$500	\$400	\$50	\$50	\$100	\$50
	Apr				\$100	\$600	\$150	\$100	\$50	\$50
	May					\$300	\$400	\$200	\$100	\$50
	Jun						\$200	\$600	\$200	\$50
	Jul							\$250	\$500	\$100
	Aug								\$200	\$400
	Sep									\$100
		\$200	\$400	\$950	\$750	\$1550	\$850	\$1250	\$1250	\$800

Unpaid Claim Liability		UCL Estimate at Month End								
		Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20
Incurred Month	Jan	\$500	\$300	\$200	\$100	\$50	\$0	\$0	\$0	\$0
	Feb		\$800	\$250	\$150	\$100	\$150	\$50	\$0	\$0
	Mar			\$50	\$500	\$100	\$50	\$50	\$0	\$50
	Apr				\$800	\$250	\$200	\$100	\$50	\$100
	May					\$750	\$300	\$100	\$50	\$200
	Jun						\$700	\$200	\$100	\$250
	Jul							\$750	\$300	\$100
	Aug								\$800	\$300
	Sep									\$800
		\$500	\$1100	\$500	\$1550	\$1250	\$1400	\$1250	\$1300	\$1800

- (a) (4 points) Construct a quarterly statutory pretax income statement for each quarter for XYZ. Show your work.

The response for this part is to be provided in the Excel spreadsheet.

7. Continued

- (b) (4 points) XYZ wants to protect itself against excessive risk.
- (i) (2 points) Describe how US health insurers can use contractual vehicles to transfer risk to another party.
 - (ii) (2 points) Explain how XYZ's pretax income statement will need to be adjusted under each type of risk transfer vehicle.

ANSWER:

XYZ has just received a request for information with regards to a financial audit.

- (c) (1 point) Describe what you should consider when responding to the request for information, in compliance with applicable Actuarial Standards of Practice.

ANSWER:

8.

(4 points)

(a) (1 point)

- (i) Explain the purpose of supplemental benefits in Medicare Advantage (MA) plans.
- (ii) List the Center for Medicare and Medicaid Services (CMS) conditions that that these supplemental benefits must meet.

ANSWER:

(b) (2 points)

- (i) (1 point) Describe options that CMS added to expand the definition of what could qualify as a supplemental benefit in the 2019 final call letter.
- (ii) (1 point) Describe four examples of supplemental benefits that became permissible in the 2019 final call letter.

ANSWER:

(c) (1 point) Explain how plans became able to tailor part C benefits based on the health status of a member due to CMS guidance in 2019.

ANSWER:

****END OF EXAMINATION****