

# Exam GHSPC

**Date:** Thursday, November 4, 2021

## INSTRUCTIONS TO CANDIDATES

### General Instructions

1. This examination has 6 questions numbered 1 through 6 with a total of 40 points.

The points for each question are indicated at the beginning of the question.

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,  $\beta_1$  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 the five-minute upload period expires.

*Recognized by the Canadian Institute of Actuaries.*

## Navigation Instructions

Open the Navigation Pane to jump to questions.

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



**1.**

(7 points)

- (a) (4 points) Describe how a Positive Assessment can be obtained for each of Standard and Poor's Subfactors of Enterprise Risk Management Analysis.

ANSWER:

- (b) (3 points) Describe

- (i) what constitutes a Strong Assessment, according to Standard and Poor's.

ANSWER:

- (ii) how a company can be exposed to Credit Risk.

ANSWER:

- (iii) an insurer's Interest Rate Risk Controls.

ANSWER:

- (iv) the most significant Sources of Interest Rate Risk.

ANSWER:

## 2.

(7 points)

- (a) (2 points) Describe state-level considerations for stabilizing the Affordable Care Act (ACA) marketplace.

ANSWER:

You are an actuary working for a state insurance department and are given the following information:

- Estimated uninsured population in the state is 500,000
- Average age of the population in the state is 45
- On-exchange and off-exchange HMO and PPO plans are offered in the state

- (b) (2 points) Propose questions and additional data that are necessary to assess the stability of the state's marketplace. Justify your answer.

ANSWER:

- (c) (2 points)

- (i) Describe 1332 waivers (state innovation waivers) and examples of how some states have utilized them to date.

ANSWER:

- (ii) Describe considerations for determining whether your state should apply for a 1332 waiver.

ANSWER:

- (d) (1 point) List considerations for assigning risk scores to individuals with limited data, according to ASOP 45.

ANSWER:

### 3.

(5 points)

- (a) (1 point) Define exposure in a disease management (DM) environment.

ANSWER:

- (b) (1 point) Verify the accuracy of the following statements. Justify your answer.

- (i) The actuarially-adjusted historical control methodology is a cohort study.

ANSWER:

- (ii) Excluding newly-identified members in an actuarially-adjusted historical control methodology is recommended.

ANSWER:

You are provided with the following information from a DM vendor for a health plan:

- Assumed utilization trend for the period is 5%
- Cost for the DM program is \$3 per member per month
- Vendor asserts that the DM program achieves a pre-tax hurdle rate of 150%

	Baseline Period	Measurement Period
Average Total Member Population	100,000	125,000
Chronic Member Months	300,000	375,000
Chronic Population Inpatient Admissions	20,000	25,000
Average Cost Per Member Per Year	\$8,350	\$8,350

- (c) (3 points) Critique the vendor's assertion. Show your work.

*The response for this part is to be provided in the Excel document*

**4.**

(9 points)

- (a) (1 point) Explain why a diagnosis code on a claim record may be unreliable.

ANSWER:

- (b) (4 points) Explain benefits and concerns of adding prescription drug data to the HHS – HCC Risk Adjustment Model.

ANSWER:

- (c) (1 point)

- (i) Define “reliance on other sources,” according to ASOP 41.

ANSWER:

- (ii) Describe disclosure requirements when relying on other sources of data and other information in the Actuarial Report, according to ASOP 41.

ANSWER:

- (d) (3 points) Describe the responsibility of the actuary in disclosing assumptions and methods in the Actuarial Report, according to ASOP 41.

ANSWER:

**5.**

(7 points)

(a) (2 points) Verify the accuracy of the following statements. Justify your answer.

(i) An effective ORSA will be more about a quantitative result than the process.

ANSWER:

(ii) ORSA is meant to be a highly prescribed regulatory compliance exercise.

ANSWER:

(iii) The U.S. ORSA is a byproduct of the International Core Principles (ICPs).

ANSWER:

(iv) Within the ORSA, a company is expected to only self-assess its current capital adequacy in light of its short-term business plan.

ANSWER:

(b) (5 points) Describe what an actuary should consider, according to ASOP 55, when each of the following is included in a capital adequacy assessment:

(i) Management actions

ANSWER:

(ii) Scenario and stress tests

ANSWER:

**6.**

(5 points)

- (a) (1 point) Describe methods used by care management vendors to impact medical costs.

ANSWER:

A care management vendor has proposed evaluating the cost savings from an Emergency Room (ER) utilization management program using a pre-post analysis.

- (b) (2 points) Describe considerations for the evaluation of the vendor's cost savings approach.

ANSWER:



## 6. Continued

You are given the following information for Year 1 of the program:

- The pre-post analysis proposed by the vendor was accepted without adjustments
- All members were enrolled in the program on the first day of implementation
- All members maintained insurance eligibility for the duration of the first year

Enrolled Members in Program	2,000
ER Total Paid Spend Per Visit	\$750
Total ER Visits In Year Before Intervention	4,000
Total ER Visits During Intervention	3,700
Utilization Trend Factor	2%
Annual Fee Per Enrolled Member	\$100
IT Costs Associated with Program Implementation	\$75,000

(c) (2 points) Calculate

- (i) Gross return on investment (ROI) for the program. Show your work.

*The response for this part is to be provided in the Excel document*

- (ii) Savings per enrolled member per month. Show your work.

*The response for this part is to be provided in the Excel document*

**\*\*END OF EXAMINATION\*\***