

# Exam GH 201-U

**Date:** Wednesday, November 19, 2025

## INSTRUCTIONS TO CANDIDATES

### General Instructions

1. This examination has 6 questions numbered 1 through 6 with a total of 50 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.

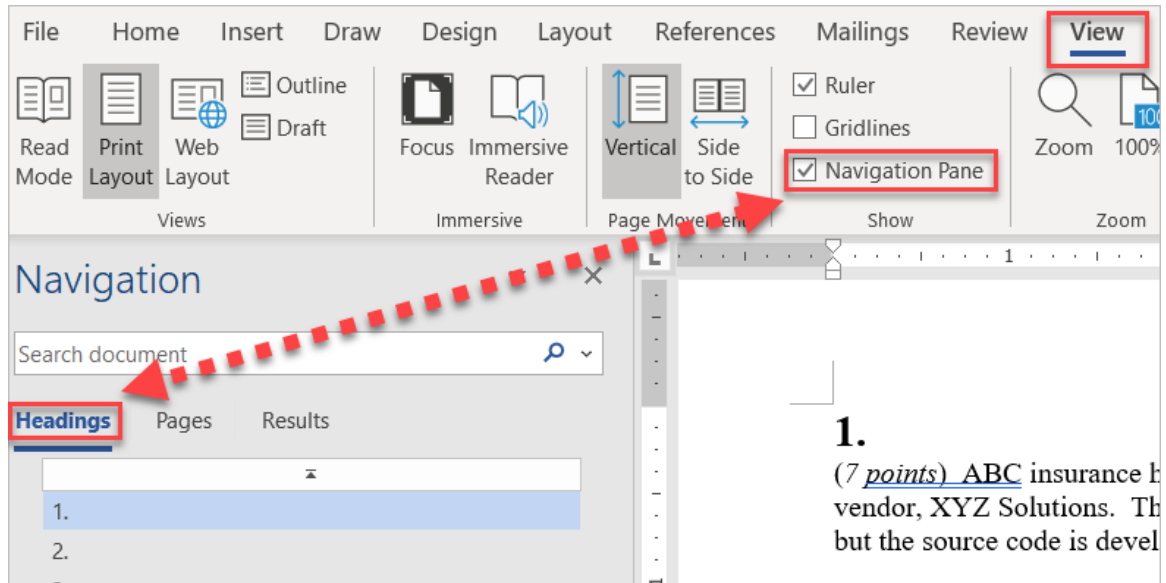
c) Individual exams may provide additional directions that apply throughout the exam or to individual items.

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 unique candidate number in the filename.
4. The Word and Excel files that contain your answers must be uploaded before time expires.

## Navigation Instructions

Open the Navigation Pane to jump to questions.

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



*The Excel spreadsheet has  
additional data and information applicable to this question*

**1.**

(7 points) You are the valuation actuary for ABC Insurance and are setting IBNR reserves as of the December 31, 20X3 valuation date.

- (a) (1 point) Describe the characteristics of coverages where the use of the development method is appropriate.

ANSWER:

In the Excel spreadsheet, you have been provided with the following data:

- ABC's cumulative paid claims by incurred month
- Monthly premiums
- Member count

Assume claims are complete after 12 months.

You are using an averaging technique that removes the highest and lowest values using the smoothed age-to-age factors derived from the provided data.

- (b) (3 points) Calculate the IBNR as of the valuation date. State any assumptions and show your work.

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

## 1. Continued

You want to evaluate the IBNR calculation using two alternative methods:

- Loss ratio method:
    - Use the incurred loss ratio from the past two complete years to develop the IBNR for the most recent two incurred months
  - PMPM projection method:
    - Use the PMPM projection method to substitute for the months where completion factors are below 40% from part (b)
    - Use the past two complete years to develop the PMPMs
    - The trend rate is 5% per annum
- (c) (2 points) Calculate the revised IBNR as of the valuation date under the following methods:
- (i) (1 point) Loss ratio method
  - (ii) (1 point) PMPM projection method

State any assumptions and show your work.

<i>The response for this part is to be provided in the Excel spreadsheet.</i>
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- (d) (1 point) Recommend which method should be used. Justify your response.

<i>The response for this part is to be provided in the Excel spreadsheet.</i>
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*The Excel spreadsheet has  
additional data and information applicable to this question*

**2.**

(8 points)

- (a) (1 point) Define premium deficiency reserve (PDR).

ANSWER:

- (b) (1 point) List 10 considerations for estimating a PDR according to ASOP 42.

ANSWER:

- (c) (1 point) Explain key considerations used to determine contract groupings within a PDR analysis.

ANSWER:

You are the appointed actuary for XYZ Insurance Company. XYZ has entered into a five-year contract with a large group as of 1/1/20X1.

In the Excel spreadsheet, you are provided the relevant assumptions about this group.

- (d) (2 points) Calculate the required PDR as of 12/31/20X1. State any assumptions and show your work.

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

## 2. Continued

One year later, actual claims experience is available for 20X2. You have been provided with updated claims projections for 20X3 – 20X5, as shown in the table below. No other assumptions have been updated.

<b>Claims PMPM</b>	
20X2 Actuals	\$870
20X3 Projected	\$909
20X4 Projected	\$950
20X5 Projected	\$993

- (e) (2 points) Calculate the PDR to be recorded in the 12/31/20X2 income statement, using the updated claims projections and your result from part (d). State any assumptions and show your work.

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

- (f) (1 point) Develop a narrative disclosing the applicable items as it relates to your PDR estimate in part (e).

ANSWER:

*The Excel spreadsheet has  
additional data and information applicable to this question*

**3.**

(10 points) PGH, a private health insurer planning to go public, offers fully insured and ASO products to large employers. You have been hired to prepare their financial reporting package.

In the Excel spreadsheet, you are provided information about a specific fully insured customer as well as projection assumptions.

- (a) (4 points) Create an income statement for this customer account for years 20X1, 20X2, and 20X3.

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

The customer switches from a fully insured to an ASO health plan in years 20X4 and 20X5. PGH's profit margin is 12% in both years. Assume no change to annual growth trends.

- (b) (1 point) Create an income statement for this account for years 20X4 and 20X5.

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

PGH management is concerned that their profit margins are too low and administrative expenses are too high.

- (c) (1 point) Explain why increasing profit margins might not lead to an increase in total earnings.

ANSWER:

- (d) (2 points) List and describe classifications of PGH's administrative expenses.

ANSWER:

### 3. Continued

PGH management plans to introduce a new fully insured HMO product with capitated arrangements for the participating providers.

(e) (2 points)

- (i) (1 point) Explain issues that may arise within financial reporting when introducing capitated provider arrangements.

ANSWER:
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- (ii) (1 point) Identify and describe adjustments that may be required to the financial reporting.

ANSWER:
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#### 4.

(9 points) A state senator is advocating for the following policy changes:

1. New-to-market drugs can only be introduced to formulary at the start of a new plan year.
2. Coverage is limited to the lowest allowed cost therapeutic equivalent for all drugs in that given class.
3. Experimental drugs are approved for use before clinical trials have been completed.
4. Prescription drug pricing will be aggregated at the class level for all reporting by the health insurance carrier.

There are four aspects that United States federal agencies consider when evaluating the impact of federal regulation of the pharmacy industry.

- (a) (2 points) Critique each proposed policy change above in relation to the four aspects.

ANSWER:

- (b) (1 point) Compare the methods available for regulating the pharmacy industry between state and federal governments.

ANSWER:

- (c) (2 points) Explain the advantages associated with having the prescription drug industry regulated at each of the following:

- (i) (1 point) The state level

ANSWER:

- (ii) (1 point) The federal level

ANSWER:

#### 4. Continued

(d) (2 points) Explain which of the following groups under state laws are typically permitted to purchase group life or health insurance policies.

- An independent grocer covering employees and dependents
- Group of independent artists all living in the southwest corner of the state
- The local ironworkers union covering its members
- Statewide medical association for dermatologists
- Three independently owned construction companies under a trust
- Creditors of a local credit union
- The mother and father of the owner of the coffee shop
- Seasonal workers during the holiday rush for a commercial beauty franchise

ANSWER:

(e) (2 points) Explain two examples of state level consumer protections for both HMO and PPO products.

ANSWER:

*The Excel spreadsheet has  
additional data and information applicable to this question*

**5.**

(10 points) You are a consulting actuary who has been hired by State X to assist with its 2024 Medicaid program.

- (a) (2 points) Describe eligibility and financing for Medicaid both before and after the ACA was implemented by completing the table below:

	Medicaid before ACA	Medicaid after ACA
Eligibility		
Financing		

- (b) (2 points) Critique the accuracy of the following statements by completing the table below:

Statement	True/False	Justification
Section 1115 waivers allow states to enroll members in programs that provide Long Term Services and Support (LTSS) in institutional settings rather than in Home and Community Based Services (HCBS) settings.		
Medicaid members are similar to populations enrolled in other types of health coverage.		
Medicaid benefits usually have high deductibles and copays to disincentivize overutilization.		
Since public funds are used to pay for Medicaid, states should always set capitation rates to be as high as possible.		

- (c) (2 points) Describe unique aspects of Medicaid capitation rate development and certification.

ANSWER:

## 5. Continued

State X implemented an MLR-based two-sided risk corridor with each of its three Medicaid MCOs.

In the Excel spreadsheet, you are given the financial metrics for each MCO.

For the MLR-based two-sided risk corridor, assume:

- The MCO is at 100% risk for the portion of MLR that is +/- 0.0% to 2.5% of the target
- The state and MCO share 50/50 risk for the portion of MLR that is +/- 2.5% to 4.0% of the target
- The state retains 100% of the portion of the MLR that is more than +/- 4.0% of the target

- (d) (2 points) Calculate the state's recoupment from or payment to each MCO as a result of the risk corridor. Show your work.

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

State X is looking for other methods beyond a risk corridor by which it can protect the MCOs from insolvency.

- (e) (2 points) Recommend three alternative methods. Justify your answer.

ANSWER:

**6.**

(6 points) Dr. A operates an independent solo practice in a large metro area. Dr. A is considering two offers:

- Join a large group practice, or
- Join a large hospital system.

- (a) (2 points) Compare and contrast the motivations of a large group practice and a large hospital system in extending an offer to Dr. A to join their organization.

ANSWER:

- (b) (2 points) Evaluate potential advantages and disadvantages of each offer for Dr. A.

ANSWER:

- (c) (2 points) Assess the ways in which Dr. A joining with a large hospital system could impact the cost and quality of care in the metro region.

ANSWER:

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