

# Exam CFE 201

**Date:** Monday, November 17, 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. Questions 1, 3, 4, and 6 pertain 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.

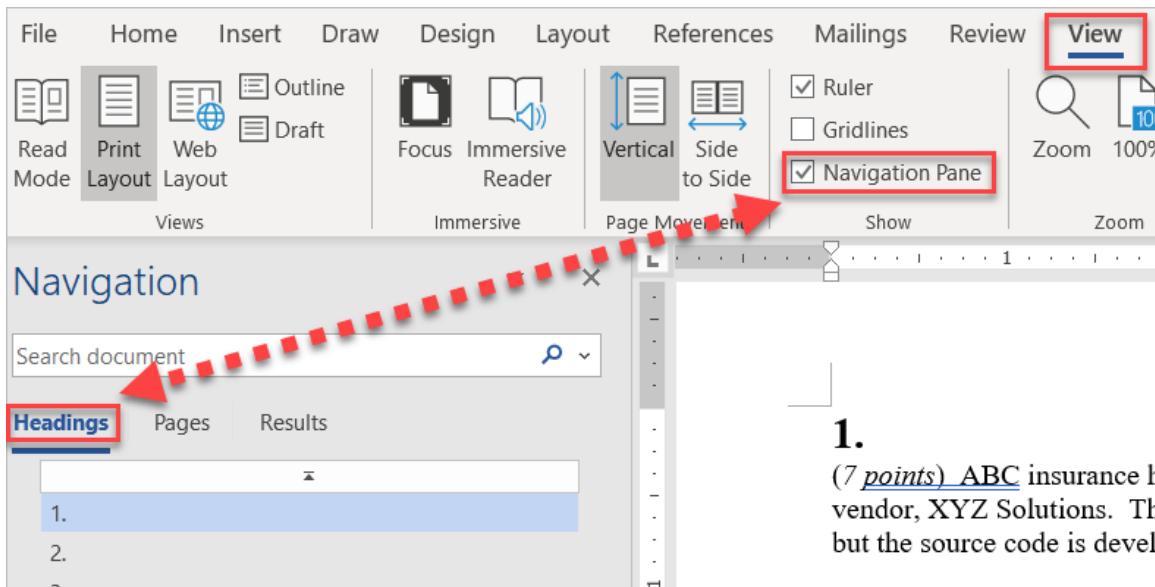
### Written-Answer Instructions

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,  $\beta_1$  can be typed as beta\_1 (and  $\wedge$  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) For each question part requiring an answer in Excel, (1) clearly identify the inputs to the calculations, (2) show the necessary interim calculations, adding rows and / or columns, if necessary, and (3) enter the final answer in some or all of the cells highlighted in yellow, as applicable in each circumstance. These cells should contain formulas with links to other calculations in the worksheet. Minimize the use of hard-coded figures and maximize the number of interim steps in the calculations that would demonstrate your line of thinking.
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. To maintain anonymity, please refrain from using your name and instead use your candidate number.
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:



1.

(7 *points*) ABC insurance has a new vendor, XYZ Solutions. The vendor has provided a new set of source code. The source code is developed in C# and is located in the following folder:

## **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.**

***Questions 1, 3, 4, and 6 pertain to the Case Study.  
Each question should be answered independently.***

**1.**

(10 points) You are an analyst at Darwin Life Insurance Company. Darwin is interested in purchasing Snappy (Case Study sections 5 and 6).

(a) (1.5 points) Describe Darwin's rationale for the acquisition using two archetypes of value-creation.

ANSWER:

Your intern says, "I bet we can underpay for Snappy and create more value for ourselves."

(b) (1 point) Critique your intern's statement.

ANSWER:

Snappy's representatives have informed you that Darwin, two other insurers, and a private equity firm are bidding to acquire Snappy.

(c) (1 point) Explain how other parties submitting offers on Snappy could affect the expected value to Darwin of a winning bid.

ANSWER:

(d) (2.5 points)

(i) (1.5 points) Explain three reasons why a private equity firm might be interested in acquiring Snappy.

ANSWER:

(ii) (1 point) Describe two risks that the private equity firm may need to mitigate if it successfully acquires Snappy.

ANSWER:

## 1. Continued

Snappy will accept bids in cash or in stock. Darwin can prepare up to two bids.

(e) *(2 points)* Compare and contrast the risks and benefits to Darwin if they pay in cash vs. if they pay in stock, keeping in mind that the acquisition may create or destroy value for Darwin.

ANSWER:

(f) *(2 points)* Recommend whether Darwin should offer to pay for Snappy in cash or in stock. Justify your recommendation.

ANSWER:

## 2.

(8 points) Company ABC, a U.S.-based company, is considering Skylite as a potential acquisition target. Skylite is located in a country called Vitoria, where the currency is the Vitor.

- As of December 31, 2024, the exchange rate is 1 USD to 6 Vitor.
- Vitoria has experienced hyperinflation in the past, but it has stabilized recently, with cumulative inflation from 2022-2024 being less than 100%. Due to this, Skylite uses USD for its financial reporting.

The CEO of Company ABC is pleased with this arrangement and mentioned to her CFO, "This will simplify the financial statement reporting by just consolidating and translating Skylite onto our balance sheet."

(a) (4 points)

(i) (1 point) Critique the CEO's statement.

ANSWER:

(ii) (2 points) Translate Skylite's provided financial statements as of December 31, 2025 as they would show up on Company ABC's financial statements. Use Excel tab 2\_a-ii.

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

(iii) (1 point) Explain the impact to Skylite's equity due to FX changes at the end of 2025.

ANSWER:

## 2. Continued

Company ABC is worried about the effects of potential hyperinflation.

(b) *(3 points)*

(i) *(2 points)* Translate Skylite's financial statements as of December 31, 2025, before consolidation under the hyperinflation scenario provided on Excel tab 2\_b-i.

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

(ii) *(1 point)* Explain the impact to Skylite's equity due to FX changes at the end of 2025.

ANSWER:

(c) *(1 point)* Recommend two actions that can be used to minimize Company ABC's financial statement volatility. Justify your recommendation.

ANSWER:

***Questions 1, 3, 4, and 6 pertain to the Case Study.  
Each question should be answered independently.***

### **3.**

(9 points) You are an investment analyst for Eris, a private equity company running a buy-out fund. Your job is to investigate companies for acquisition purposes, determining if they may be good investments for the fund. You are analyzing two companies recently divested from RPPC, Blue Jay Air and Frenz (Case Study sections 2 and 3), and would typically use ratio analysis to make your recommendation.

(a) (2 points) Describe two limitations of ratio analysis that may present challenges when comparing Blue Jay Air and Frenz.

ANSWER:

(b) (2 points)

(i) (1 point) Describe the two types of common size analysis.

ANSWER:

(ii) (1 point) Recommend one type of analysis for analyzing both Blue Jay Air and Frenz. Justify your recommendation.

ANSWER:

You are provided summarized financial statements on Excel tab 3\_c.

(c) (2 points) Perform the common size analysis for Blue Jay Air and Frenz that you recommended in part (b).

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

(d) (3 points) Recommend which company to buy for the buy-out fund based on the conclusions that can be drawn from the common size analysis performed in part (c).

ANSWER:

***Questions 1, 3, 4, and 6 pertain to the Case Study.  
Each question should be answered independently.***

**4.**

(9 points) Snappy Life Insurance Company (Case Study section 6) is experiencing a drop in its capital ratio. Snappy has failed to respond to this crisis.

(a) (2 points) Describe two pitfalls Snappy is facing due to management not responding to the crisis.

ANSWER:

Due to the failure of responding to the crisis, Snappy realizes the importance of resilience management.

(b) (4 points)

(i) (1 point) List the three most important resilience dimensions that can be tested by Snappy.

ANSWER:

(ii) (1 point) Rank the three resilience dimensions from part (i) based on how important each is to Snappy. Justify your ranking.

ANSWER:

(iii) (2 points) Explain one opportunity for Snappy to improve its resilience in each dimension from part (i). Justify your responses.

ANSWER:

#### **4. Continued**

Snappy is concerned with its resilience due to the following three risks:

- I. Absolute-shortage risk
- II. Supplier risk
- III. Inflation risk

(c) *(3 points)* Outline a system for Snappy to improve its resilience, given these risks.

ANSWER:

## 5.

(7 points) ABC Inc. is evaluating the quality control processes for the landing gears it manufactures. The company wants to use a testing method with a binary target feature of "functional" (negative) or "defective" (positive) and has hired you as a consultant on the project.

(a) (2 points) Compare and contrast the use of hold-out sampling and k-fold cross validation for the quality control analysis.

ANSWER:

(b) (1.5 points) Create a confusion matrix using the information provided in the table below (see Excel tab 5\_b&c). Show your work.

Statistic	Value
Total Observations	1,750
Total Defective Units	50
Precision	20%
Recall	100%

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

The Production Manager for landing gears informs you of the following economic assumptions:

- Each defective landing gear costs \$5,000 to repair.
- Each false "defective" costs \$1,000 in inspection delays.

(c) (1.5 points) Calculate the expected annual cost of ensuring quality landing gears. Show your work.

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

## 5. Continued

You review your results with the Production Manager, who is new to these statistical techniques. He says, "Great work, but my product line is being held to a tight budget. From what you're showing me, if we just improve the precision of the model, we'll reduce those pesky false positives that create inspection delays."

(d) (2 points) Critique the Production Manager's statement.

ANSWER:

***Questions 1, 3, 4, and 6 pertain to the Case Study.  
Each question should be answered independently.***

## **6.**

(7 points) You are a manager for Blue Jay Air (BJA). BJA introduced a new loyalty program (Case study section 2.6.3) and wants to target business travelers. BJA proposes introducing a machine learning model to identify business travelers quickly since its extensive application form is under-utilized. Doing so will allow BJA to target those customers with Big Ben Bank's enhanced air points credit card.

(a) (1 point) Describe three issues to consider beyond model accuracy when selecting the type of machine learning approach to use in a business situation.

ANSWER:

You are tasked with determining if BJA has sufficient data available to implement its machine learning model.

(b) (2 points) Evaluate the data feasibility considerations specific to BJA's implementation of a machine learning model.

ANSWER:

(c) (2 points) Explain whether BJA is more likely to encounter agency risk or moral risk through the use of the machine learning model.

ANSWER:

Because of the limited data, BJA management wants to keep the model unlocked.

(d) (2 points) Recommend two questions BJA management should ask when deciding between locking or unlocking its machine learning model. Justify your recommended questions using information from the case study.

ANSWER:

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