22. (2 points)

An actuary is using the development technique based on accident year data to calculate ultimate claim estimates at 12 months maturity.

For each issue provided below, briefly discuss how it may impact the analysis and propose an appropriate response to mitigate the issue.

a. (0.5 point)

The actuary observes a long development pattern.

b. (0.5 point)

Tort reforms anticipated to decrease severity on all open and future claims were recently enacted.

c. (0.5 point)

In recent years, policies have been written with higher deductibles than in prior years.

d. (0.5 point)

The insurer has implemented a new claims system that allows faster processing of claims.

QUESTION 22	
TOTAL POINT VALUE: 2	**LEARNING OBJECTIVE: B3, B4, B5**
SAMPLE ANSWERS	

Part a: 0.5 point

Sample Answer 1

Early maturities are highly leveraged. Use BF Method.

Sample Answer 2

Claims at early maturities will be volatile, which can cause incorrect estimates. Expected claim method can be used instead.

Part b: 0.5 point

Sample Answer 1

Overstates estimation based on historical claims. Use report year data as it will address the issue.

Sample Answer 2

It would cause lower true CDF than historical. To mitigate the issue use a F-S technique and modify the severity.

Part c: 0.5 point(s)

Sample Answer 1

Probably will be more development in later periods since it will take longer for losses to reach deductible, as well as large losses more likely settled later. Restate all claims at new deductible levels to mitigate effect.

Sample Answer 2

Mix of business will change after the higher deductibles. On average, insurer will pay less and so development technique based on historical data will overestimate. Policy Year data should be used to neutralize or isolate the change.

Part d: 0.5 point(s)

Overstates estimation, CDF developed based on historical data will be higher than actual. Use B-S to account for change.

EXAM 5 SAMPLE ANSWERS AND EXAMINER'S REPORT

EXAMINER'S REPORT
Part a
Candidates were expected to know how the development technique worked, that the development would be leveraged, and what alternative methods could be used to mitigate this.

Candidates generally scored well on this part. One common error was to say that development would understate as you wouldn't have enough data to estimate the tail, and you needed to use industry data or a curve to fit a tail. This answer was given partial credit if they included both the impact and response, but not full credit because it does miss a key component of the problems with the development technique (LDF would still be leveraged), and thus was not a complete answer. |
| **Part b** |
| Candidates were expected to know how tort reforms would impact development and what alternative methods could be used. They were also expected to know that decreasing severity would shorten development, factors based on history would overstate the analysis, and what alternative methods could be used to mitigate this.

Candidates struggled with this part. In particular, candidates generally had difficulty explaining how to adjust the reserve analysis in response to the change. Common errors include:
- Suggesting the use of the BF method, which would be inappropriate because the changing severity would also impact the % unreported
- Suggesting restating claims at lower severities; however, it's not clear how the tort reforms would impact individual claim development |
| **Part c** |
| Candidates were expected to know what impact a change to deductible would have on losses, reporting patterns, and how to mitigate it.

Candidates struggled with this part. In particular, candidates generally had difficulty articulating the impact the change would have on the reserve analysis. |
| **Part d** |
| Candidates were expected to understand that increase in settlement meant speed of up development and what impact that would have on our estimate, as well as how to respond to it. Candidates were expected to answer that the current approach would overstate estimates, and that the B-S method was most appropriate.

Candidates generally scored well on this part. One common mistake was to assume only paid-loss patterns would shift, but reported-loss patterns would be unaffected. This was not reasonable given the information in the problem as paid losses are a component of reported losses. |