23. (3.5 points)

Given the following information for an insurance company (all figures are in millions of dollars):

Development in estimated losses and loss expenses incurred prior to current year

2013	2012	2011	2010	2009	2008
12	25	14	-15	20	17

Company's Year-End Policyholders' Surplus

2013	2012	2011	2010	2009	2008
300	275	265	275	325	300

Company's 2013 Annual Statement and the Appointed Actuary's analysis:

	Actuary's Gross Estimate	Actuary's Net Estimate	Company's Gross Carried	Company's Net Carried
Loss reserves	1,200	600	1,150	575
DCC reserves	800	400	600	300
A&O reserves	300	150	250	125
Unearned premium reserves for long duration contracts	100	80	90	80

In addition, the Appointed Actuary's range of reserve estimates is +/- 10% on both a gross and net basis.

a. (2 points)

Construct the table for items A through D that would appear in the Appointed Actuary's 2013 Actuarial Opinion Summary.

b. (1.5 points)

Propose language for item E of the Actuarial Opinion Summary regarding the company's adverse development over the past five calendar years.

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SAMPLE ANSWERS AND EXAMINER'S REPORT

QUESTION 23

TOTAL POINT VALUE: 3.5 | **LEARNING OBJECTIVE: D**

SAMPLE ANSWERS

Part a: 2 points

Sample 1: (excludes UEPR for long duration contracts)

	Gross			Net		
	Low	Point	High	Low	Point	High
A. Actuary's Range of Reserves	2,070		2,530	1,035		1,265
B. Actuary's Point Estimate		2,300			1,150	
C. Company's Carried Reserves		2,000			1,000	
D. Difference between Company and Actuary	-70	-300	-530	-35	-150	-265

Sample 2: (includes UEPR for long duration contracts, either within the same table as shown below, or by providing a separate table for loss & LAE reserves and UEPR for long duration contracts)

	Gross			Net		
	Low	Point	High	Low	Point	High
A. Actuary's Range of Reserves	2,160		2,640	1,107		1,353
B. Actuary's Point Estimate		2,400			1,230	
C. Company's Carried Reserves		2,090			1,080	
D. Difference between Company and Actuary	-70	-310	-550	-27	-150	-273

Part b: 1.5 points

Sample calculation:

	2013	2012	2011	2010	2009
Development/ Prior Year PHS	12/275 = .044	25/265 = .094	14/275 = .051	-15/325 = -.046	20/300=.067

Item E sample answers:

- In three of the last five years, this company had adverse development in loss and loss expenses greater than 5% of prior year policyholder surplus. These years are 2009, 2011, and 2012. This company has been booking reserves below the actuary's minimum range of reasonable estimates leading to this consistent development over the years. The main driver of the development is the Workers Compensation reserves which are consistently coming in with higher severities than predicted.
- Adverse development in last 5 years did exceed 5% of surplus at least 3 times. This occurred in 2012, 2011, and 2009. This is due to higher than expected reported emergence in Asbestos and Environmental claims.

EXAMINER'S REPORT

Part a

Candidates generally performed well on this part. Common errors included:

- Not showing both the gross and net values separately
- Not showing the actuary's range of reserve estimates
- Not including the difference of company carried reserves and actuary's range of reserve

estimates • In item D many candidates calculated :actuary estimate – company carried" instead of "company carried – actuary estimate"
Part b
Many candidates correctly performed the calculations, but some missed parts of the language for Item E. Common errors in the calculation: • Calculating adverse development as development divided by current year surplus instead of development divided by prior year surplus • Not using 5% as the threshold for adverse development Common errors in the language for Item E: • Not listing years with adverse development • Not including the reasons for the adverse development