28. (1.75 points)

An actuary performed a year-end analysis of unpaid claims for the purpose of completing an insurance company's year-end Statement of Actuarial Opinion. Using the following information (all figures are in millions of dollars):

Low end of actuary's range of unpaid loss and LAE	490
High end of actuary's range of unpaid loss and LAE	510
Company's carried reserves	497
Company's policyholders' surplus	150
Company's Total Adjusted Capital	150
Company's authorized control level risk based capital	70
Actuary's materiality standard	15

a. (0.5 point)

Provide a rationale supporting the actuary's materiality standard of $15 million.

b. (0.5 point)

Management believes the materiality standard should be $8 million based on the fact that $8 million would put the company below the actuary's range. Comment on Management's suggested materiality standard of $8 million.

c. (0.75 point)

Propose an alternative materiality standard for the company's Statement of Actuarial Opinion and provide a rationale for why it is better than $15 million.

CONTINUED ON NEXT PAGE

28) Sample Answer

Part A

Answer 1

$15M is 10% of surplus (10% of 150), which is a fairly high percentage but still within reason. Also, IRIS ratio for ΔPHS says that it's an extraordinary value if the change is < -10% (or > 50%). So 10% of negative (bad) development may cause an unusual value.

Answer 2

10% of PHS = 10% (150M) = 15M
This is a common threshold used because protecting PHS is very important to the solvency of an insurer.

Answer 3

15M = 10% of capital & surplus. A reasonable amount to assume would have a material effect on users decision.

Part B

Answer 1

A materiality standard should not be dependent on the actuaries range; better choice would be % reserve, % surplus, etc.

Answer 2

This is not a valid materiality standard. The range of the actuary is independent of the materiality standard. The company's carried reserves. It should be used to evaluate material risk using the actuary's range as a threshold

Part C

RBC Ratio = 150/70=2.14 140/70=2.00
150-140=10
I'd select 10 million because this would drop them to the company action level. It's better than 15 because 10 is where operations would be impacted by more regulations

Examiner's Report

a. Candidates needed to relate the selected materiality standard of $15 million to another dollar amount. This could have been achieved by relating the amount to total surplus, total reserves, or showing the impact that $15 million would have on the RBC calculation. Candidates,also, needed to incorporate the definition of materiality in some way, either by identifying that the $15 million would be large enough to influence primary/end user's decisions or that this amount would be significant for solvency considerations. If candidates demonstrated the RBC calculations here, we would not give the candidate additional credit here but would give an additional ¼ point in part c if the RBC calculations were not present. An alternative full credit response that several candidates gave which we viewed as not the original intent but valid was that the selection of $15 million was good because that is the -10% of surplus trigger for IRIS ratio 7. Candidates did not need to identify the test as IRIS ratio 7 to receive credit.

b. To receive credit, it was important for the candidate to realize that the actuary's range is not an appropriate criterion to base the materiality standard upon because it will be evaluated against the materiality standard to see if RMAD exists. Candidates often used the actuary's range to justify the selection of $8 million as a reasonable materiality standard. This was not given any credit. If the candidate recognized that management would be more interested or should be more concerned with the high end of the range and suggested that $13 million was better, ¼ point was given for that recognition. It would be very difficult to receive the other ¼ point since ¼ point credit was given for explicitly stating that the materiality standard should not be selected based on the actuary's range. ¼ point of credit could also be achieved by incorporating parts of the definition of materiality that had not been previously stated in part a. Credit could also have been achieved via using the RBC calculations and demonstrating that the $8 million was prudent because one could have risk of material adverse deviation before breaching the company action level and would give management a buffer zone of $2 million to make appropriate management decisions. Full credit was also given for this question if the candidate said the $8 million was not appropriate and listed common materiality standards (% of surplus, % of reserves, amount to breach next RBC level) that should have been used.

c. To receive full credit here, the candidate had to select a precise numeric materiality standard of $10 million since this would cause an RBC level change, acknowledge the RBC impact and explain why it's better than $15 million. The candidate needed to identify that a reduction of $10 million of surplus would put the company into RBC company action level and the use of $15 million as a materiality standard would not recognize the possibility of this material event. Partial credit was commonly received for this question part because most candidates selected a standard and demonstrated the RBC calculations. However, candidates often did not explain why their selected materiality standard was better than $15 million and they would not receive full credit without this. Full credit was not given if the candidate said that their selected standard was more conservative than $15M as this was deemed too ambiguous without more explanation.