26. (2 points)

Given the following information:

Accident Year	Cumulative Paid Claims ($000) as of (months)			
	12	24	36	48
2013	750	1,125	1,350	1,485
2014	2,000	3,000	3,600	
2015	2,500	3,750		
2016	3,000			

Accident Year	Calendar Year Paid ULAE ($000)
2013	220
2014	220
2015	330

- Case reserves at December 31, 2016 = $3,500,000.
- IBNR reserves at December 31, 2016 = $1,000,000.
- The four-year weighted average ULAE to loss ratio = 10%.
- No business was written prior to 2013.

a. (0.5 point)

Estimate the unpaid ULAE using the classical technique.

b. (1 point)

Calculate the paid ULAE to paid claims ratio for calendar year 2016.

c. (0.5 point)

Assess the reasonableness of the unpaid ULAE estimate from part a. above.

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QUESTION 26

TOTAL POINT VALUE: 2 | **LEARNING OBJECTIVE(S): B7**

SAMPLE ANSWERS

Part a: 0.5 point

Sample 1

$275,000 = .1[$1,000,000 + .5 * $3,500,000]

Sample 2

CY 2013 Paid = 750
CY 2014 Paid = 2000 + 1125 – 750 = 2375
CY 2015 Paid = 2500 + 3000 – 2000 +1350 – 1125 = 3725

CY	Paid Claims	Paid ULAE	ULAE Ratio
2013	750	220	29.3%
2014	2375	220	9.3%
2015	3725	330	8.9%

Select .09 as CY 2013 is out of line compared to the last two years.

$247,500 = .09[$1,000,000 + .5*$3,500,000]

Part b: 1 point

CY	Paid Claims	Paid ULAE	ULAE Ratio
2013	750	220	29.3%
2014	2375	220	9.3%
2015	3725	330	8.9%
2016	4985	x	
Total	11,835	1,183.5	10.0%

1183.5 – 220 – 220 – 330 = 413.5

413.5 / 4985 = 8.3%

Part c: .5 point

Sample 1

The estimate in part a is too high, the ratios have been declining by calendar year since the business is new, so the ratio will be overstated and the estimate will be inappropriate.

Sample 2

No, estimate is inappropriate since the paid ULAE to paid claims ratio is decreasing sharply. The ratios in 2014 – 2016 are all less than 10%

Sample 3

The selected ratio in a was 10% which incorporated all years. 2013 was the 1st year and was much higher than the others, and the ratio appears to be decreasing each year. Therefore the estimate in a is overstated.

Sample 4

I selected 0.0906 = Average(14,15) as the ULAE ratio. CY 2016 ULAE paid = 0.083 < 0.0906. It seems my ULAE unpaid estimate is too high considering the CY 2016 experience. Using a weighted average of 2014 – 2016 ULAE to paid ratio would be a better estimate.

EXAMINER'S REPORT

Candidates were expected to demonstrate knowledge about using the classical technique to estimate unpaid ULAE and when this technique is appropriate.

A common mistake was failing to recognize that calendar year paid claims were the appropriate denominator for the paid to paid ratio in the classical technique.

Part a

Candidates were expected to estimate the unpaid ULAE using the classical technique, demonstrating that the ULAE ratio is applied to 50% of the case reserves and 100% of the IBNR reserves. Candidates were expected to use the given four year average 10% paid to paid ratio, but credit was also awarded to candidates who calculated and selected an appropriate ratio.

Common errors included

- calculation mistakes
- selection an inappropriate ULAE ratio.

Part b

Candidates were expected to determine the calendar year 2016 paid ULAE to paid claims ratio given the information provided.

Common errors included

- confusing accident year and calendar year paid
- not realizing that the 4 year ratio is required to calculate the solution
- Developing losses or ULAE to ultimate

Part c

Candidates were expected to recognize that ULAE ratios were declining over time and comment that the result was not appropriate given the shift in paid to paid ratios over time.

Common errors included

- not referencing the changing paid to paid ratios
- stating that assumptions of the classical method are violated without relating to why that would lead to an unreasonable estimate; for example, stating that the book appears to be growing so this violates the assumption of a steady state, without relating why that leads to an unreasonable result
- Not providing adequate justification for assessment of reasonableness, such as saying it looks reasonable because it's in line with the average