

22. (1.75 points)

Given the following information as of December 31, 2017:

Calendar Year	Paid Claims (\$)	Paid ULAE (\$)
2014	21,300	1,030
2015	20,900	1,040
2016	20,800	1,040
2017	21,200	1,090

Accident Year	Paid Claims (\$)	Reported Claim Counts	Closed Claim Counts	Ultimate Claim Counts	Ultimate Claims (\$)
2014	20,800	335	335	335	20,800
2015	18,000	300	270	330	21,400
2016	12,000	275	190	330	21,500
2017	5,000	200	80	335	21,800

60%	Percent of unallocated work that occurs when a claim is opened
40%	Percent of unallocated work that occurs when a claim is closed

- Claims are fully settled and paid by 48 months.

a. (0.75 point)

Estimate the provision for claims incurred but not yet reported (IBNYR) for all accident years as of December 31, 2017.

b. (1 point)

Estimate unpaid ULAE as of December 31, 2017.

EXAM 5 FALL 2018 SAMPLE ANSWERS AND EXAMINER'S REPORT

QUESTION 22

TOTAL POINT VALUE: 1.75

LEARNING OBJECTIVE(S): B3, B7

SAMPLE ANSWERS

Part a: 0.75 point

Sample 1

	(1)	(2)	(3)
AY	IBNYR Claim Counts	Implied Ult Severity	IBNYR Claims
14	0	-	0
15	30	64.85	1,945
16	55	65.15	3,583
17	135	65.07	<u>8,785</u>
			14,313

(1) = Ult Counts – Reported Counts

(2) = Ultimate Claims / Ultimate Counts

(3) = (1) x (2)

Sample 2

Ultimate Claim – Paid Claim

Ultimate Claim Count – Closed Claim Count

AY

14

15

16

17

0

21,400 – 18,000

330 – 270

3,732

8,894

x [Ultimate Claim Count – Reported Claim Count] = IBNYR

x [330 – 300] = 1,700

Sample 3

	(1)	(2)	(3)	(4)	(5) = (1) x (4)
AY	IBNR	Open Counts	Unreported Counts	IBNYR %	IBNYR
14	0	0	0	0	0
15	3400	30	30	50%	1700
16	9500	85	55	39.3%	3734
17	16,800	120	135	52.9%	8887

Sample 4

AY	Paid on Closed Severity	IBNYR
14	62.09	0
15	66.67	(330-300) x 66.67 = 2000
16	63.16	(330 – 275) x 63.16 = 3473.8
17	62.5	(335 – 200) x 62.5 = 8437.5

Sample 5

Ultimate Claims x [1 – (Reported claim counts/ Ultimate Claim Counts)] = IBNYR

AY 2014 = (20,800) (1 – 335/335) = 0

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AY2015 = (21,400) (1 – 300/330) = 1,945
 AY2016 = (21,500) (1 – 275/330) = 3,583
 AY2017 = (21,800) (1 – 200 / 335) = 8,785

Part b: 1 point

Sample 1

CY	Paid ULAE/Paid Claim
14	0.048
15	0.05
16	0.05
17	0.05

Select 0.05 as the ULAE Ratio

AY	Unpaid -IBNYR	IBNYR
14	0	0
15	1,700	1,700
16	5,768	3,732
17	7,906	8,894
Total	15,374	14,326

Unpaid ULAE = (15,374 x 0.05 x 40%) + (14,326 x 0.05) = 1,024

Sample 2

	(1)	(2)	(3)	(4)	(5) = (2) x (4)
AY	IBNYR Claim Counts	Open Counts	Unpaid ULAE %	Ult ULAE	Unpaid ULAE
14	0	0	0%		
15	30	30	12.73%	1065.72	135.64
16	55	85	26.97%	1070.7	288.76
17	135	120	54.62%	1085.64	<u>593.05</u>
					1017.45

(3) = [(1) + 40% x (2)] / Ult Counts

(4) = Ult Claims x .0498

Sample 3

Unpaid ULAE = (15,379 x 0.05 x 40%) + (14,321 x 0.05 x 1) = 1,024

Unpaid ULAE = w* x [IBNYR + 40% (Case + IBNER)]

EXAMINER'S REPORT

Candidates were expected to estimate incurred but not yet reported (IBNYR) claims and use this information to estimate unpaid ULAE.

Common mistakes include:

- Not correctly identify the relationship between case reserves, incurred but not enough reported (IBNER), and incurred but not yet reported (IBNYR).
- Using the incorrect technique to estimate unpaid ULAE.

EXAM 5 FALL 2018 SAMPLE ANSWERS AND EXAMINER'S REPORT

Part a
<p>Candidates were expected to calculate the incurred but not yet reported claim provision for all accident years.</p> <p>Common mistakes include:</p> <ul style="list-style-type: none">• Calculating the unpaid claim amount (ultimate claims – paid claims) instead of the IBNYR provision.• Calculating incurred but not yet reported claim counts instead of claims, or not knowing how to proceed after calculating IBNYR claim counts• Incorrectly calculating IBNYR and/or open claim counts• Estimating case outstanding and IBNER provision instead of the IBNYR provision• Attempting to estimate IBNYR by taking the sum of the accident year ultimate or paid less CY paid
Part b
<p>Candidates were expected to calculate the unpaid ULAE estimate using the data presented and appropriate assumptions.</p> <p>Common mistakes include:</p> <ul style="list-style-type: none">• Using an invalid ULAE estimation method based on the data presented.• Using the wrong denominator in the ratio of calendar year paid ULAE to calendar year paid claims.• Using incorrect weights to apply to different claim provisions (eg, 50%/50% weighting, 60% to case outstanding + IBNER, etc.).• Taking 100% of the pure IBNR and then 40% of the total unpaid losses (without subtracting pure IBNR), resulting in 140% weight to pure IBNR.• Incorrectly calculating case outstanding + IBNER.• Applying the ratio of calendar year paid ULAE to calendar year paid claims to total unpaid claims.• Calculating unpaid ULAE for only one accident year• Incorrectly mixing calendar and accident year data