15. (2.75 points)

Given the following information from an insurance company's 2015 and 2016 Annual Statements and Insurance Expense Exhibits (all figures are in millions of dollars):

Insurance Expense Exhibit, Part II	**2015**	**2016**
Premiums written	622	501
Premiums earned	473	402
Dividends to policyholders	64	13
Incurred loss	225	154
Defense and cost containment expense incurred	36	35
Adjusting and other expenses incurred	27	26
Unpaid losses	1,580	1,557
Defense and cost containment expenses unpaid	339	358
Unearned premium reserves	101	201
Commission and brokerage expenses incurred	123	113
Taxes, licenses & fees incurred	44	54
Other acquisition, field supervision, and collection expenses	55	45
General expenses incurred	76	66
Other income less other expenses	-10	-17
Investment gain on funds attributable to insurance transactions	47	58
Investment gain attributable to capital and surplus	18	28

a. (2.25 points)

Calculate the company's 2016 IRIS ratio 5 (Two-Year Overall Operating Ratio).

b. (0.5 point)

Determine whether the IRIS ratio calculated in part a. above is within the range of usual values, and briefly describe how a regulator might respond to this IRIS ratio.

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- Using the paid loss as the incurred loss for 2017 and not including the reserve change.
- Using the unearned premium reserve formula to carry premium to 2017 when the policy is fully earned in 2016.

QUESTION: SPRING 2018 EXAM 6U, QUESTION 15	
TOTAL POINT VALUE: 2.75	**LEARNING OBJECTIVE: C2**
SAMPLE ANSWERS	
Part a: 2.25 points	
<u>*Sample 1*</u> IRIS 5 = 2 Year Loss Ratio + 2 Year Underwriting Expense Ratio – 2 Year Investment Income Ratio Loss Ratio = (225+154+36+35+27+26+64+13) / (473+402) = .663 Underwriting Expense Ratio = (123+113+44+54+55+45+76+66 – (-10-17))/(622+501) = .537 Investment Income Ratio = (58+28+47+18)/(473+402) = .173 .663 + .537 – 17.3 = 1.027	
Part b: 0.5 point	
<u>*Sample 1*</u> The ratio is >= 100%, so it is not within the usual values. The regulator will check other IRIS Ratios with more scrutiny to determine if insurer is in good financial standing with enough surplus. <u>*Sample 2*</u> The ratio is higher than 100%, making this an unusual value. The regulator should look at the income for each line of business and determine which lines are driving this value. <u>*Sample 3 – if part a resulted in a ratio less than 100%*</u> The ratio is less than 100% so it is in the usual range. No regulator reaction necessary.	
EXAMINER'S REPORT	
Candidates were expected to demonstrate knowledge of Annual Statement data, IRIS Ratio 5, including the usual range for this ratio and the reaction of a regulator based on whether the ratio was in the usual or unusual range.	
Part a	
Candidates were expected to calculate the IRIS Ratio 5 from the provided annual statement data. Common errors include: • Failing to provide the correct formula for the ratio • Dividing amounts by the incorrect premium (Earned vs Written and vice versa) • Calculating the ratio and then averaging	

Part b

Candidates were expected to demonstrate knowledge of the usual range for IRIS Ratio 5 and the reaction of a regulator based on whether the ratio was in the usual or unusual range.

Common errors include:

- Failing to mention the cut-off of the usual range
- Identifying an incorrect usual range
- Describing a regulator action inconsistent with the finding such as:
  - Limit the insurer's future writings; or
  - Recommend laying off employees to reduce expenses
- Describing a regulator action inconsistent with the finding from a directional standpoint (saying the ratio was in the range, then recommending regulator action, or vice versa).

QUESTION: SPRING 2018 EXAM 6U, QUESTION 16	
TOTAL POINT VALUE: 3.25	**LEARNING OBJECTIVE: C2**
SAMPLE ANSWERS	

Part a: 1.25 points

The data provided for this question did not clearly state whether the UEPR figure was for non-affiliates only or included affiliate UEPR. Full credit was available for solutions using the UEPR as given or after making an adjustment for affiliate UEPR.

Sample 1 – assumes all of the UEPR is for non-affiliates

Surplus aid = (7+9)/(40+48) x 30 = 5.45

Assume all of reinsurance premiums ceded to affiliates are earned; all of UEPR is for non-affiliates

IRIS Ratio #4 = 5.45 / 28 = 19.48% > 15% unusual

Sample 2 – assumes the UEPR is for non-affiliates and affiliates combined v1

Ceding commission percentage = (7+9)/(40+48) = .182

WP percent ceded to unaffiliated: 48/152 = .316

Surplus aid = .182x(.316 x 30) = 1.73

1.73 / 28 = 6.2% < 15% so this is in the usual range

Sample 3 – assumes the UEPR is for non-affiliates and affiliates combined v2

Ceding commission ratio = (7+9)/(40+48) = .182

Gross Premium Written = 152 + 60 + 35 = 247

Net Premium Written = 247 – 88 = 159

Assume 30 Unearned Premium is Net

% Unearned = 30 / 159 = 0.1887