5. (1.5 points)

An insured had a mature claims-made policy with Insurer A in 2011 and 2012 before switching to an occurrence policy with Insurer B in 2013 and 2014. Below are the losses incurred over a 5-year period:

Accident Date	Report Date	Claim Amount
July 1, 2010	October 1, 2012	$1,000
August 1, 2010	November 1, 2011	$2,000
January 1, 2011	March 1, 2014	$2,000
April 1, 2011	May 1, 2011	$3,000
June 1, 2012	December 1, 2012	$4,000
March 1, 2013	February 1, 2015	$5,000
April 1, 2013	June 1, 2014	$3,000
April 1, 2014	August 1, 2014	$2,000

- Policies are effective on January 1 of each year.
- All policies are annual.

a. (0.5 point)

Determine the loss amount each insurer pays.

b. (0.5 point)

Briefly discuss two reasons why occurrence policy ultimate loss estimates are more volatile than claims-made policy ultimate loss estimates.

c. (0.5 point)

Discuss whether an occurrence policy or a claims-made policy is likely to earn more investment income, assuming a stable interest rate environment.

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EXAM 5 SPRING 2016 SAMPLE ANSWERS AND EXAMINER'S REPORT

QUESTION 5	
TOTAL POINT VALUE: 1.5	**LEARNING OBJECTIVE(S): A3**

SAMPLE ANSWERS

Part a: 0.5 point

Sample 1

Insured A = 1000+2000+3000+4000=10,000 Insured B = 5000+3000+2000=10,000

Sample 2

Assuming at the end of 2012 claims made policy, the insured bought tail coverage to cover reported losses after 12-31-12 for accidents which occurred during the mature claims made period, insurer A = 12,000 and insurer B = 10,000

Sample 3

For claims made assume retroactive date of 1/1/2011. Insurer A = 3000+4000=7,000 Insurer B = 5000+3000+2000=10,000

Part b: 0.5 point

- 1 - When there is a sudden shift in reporting pattern, claims made will be affected very little while occurrence will be affected a lot. 2 – When there is an unexpected loss trend change claims made will be less impacted and will not be significantly different compared to its estimate using the old trend. In comparison, occurrence will be affected much and will be very different from its estimate using the old trend.
- One reason is that occurrence policies have pure IBNR, unlike claims-made policies, so there is a report lag that allows claims to develop further under occurrence policies. A second reason is that because occurrence policies have a report and settlement lag, there is significantly more time for claims to be influenced by loss trends, so there is greater volatility.
- Reason 1 - Occurrence policy has longer development period than claims-made policy since claims-made policy does not have a report lag but the former one has. Reason 2 – If there is unexpected change in settlement rate or report

Part c: 0.5 point

- Assuming a stable interest rate environment, an occurrence policy is likely to earn more investment income since ultimate losses are impacted by both report lag and settlement lag, whereas ultimate losses on claims-made policies are only impacted by settlement lag. Therefore, occurrence policies have more time for premium to be invested.
- In case of occurrence policies, reserves will have more time to generate investment income. Also, occurrence policies have to set reserve for both IBNR and IBNER, so larger the amount available to invest, more will be the investment income. So occurrence policies will have more investment income as compared to claims made.

EXAMINER'S REPORT

Candidates were expected to understand both claims-made and occurrence coverage, how to apply those terms to claim data, and how each coverage responds in a stable interest rate environment.

This question was relatively straightforward, and candidates performed very well on this question.

EXAM 5 SPRING 2016 SAMPLE ANSWERS AND EXAMINER'S REPORT

Part a

Candidates were expected to know which claims were covered under a claims-made vs. occurrence policy given their accident and report dates.

If candidates stated an assumption regarding a retro date or the purchase of tail coverage that would have resulted in a different answer from the sample solutions, credit was awarded provided the assumption was applied properly.

Common mistakes included:

- Inclusion of the claim that would only be covered if tail coverage was covered but no assumption of tail coverage was stated.
- Candidates often did not include claims that occurred prior to 2011 but were reported under the claims made policy. Unless an assumed retro date of 1/1/11 was stated, these claims should have been included.

Part b

Candidates were expected to understand why occurrence policies are more volatile than claims made policies.

Common mistakes included:

- Listing only one reason
- Listing two reasons, where the second reason was just a restatement of the first reason
- Stating that claims made policies do not develop after 12 months
- Stating that claims made policies are not impacted by trend

Part c

Candidates were expected to demonstrate why occurrence policies earn more investment income.

Common mistakes included:

- Stating that occurrence policies earn more investment income, but not supporting the statement
- Stating that claims made policies are fully paid by 12 months
- Confusion in explaining settlement lag (the time from when a claim is reported to when it is closed) versus report lag (the time from when a claim occurs to when it is reported)