CM1: Corrections Page 1

# **Subject CM1**

# **Corrections to 2025 study material**

#### 1 Comment

This document contains details of any errors and ambiguities in the Subject CM1 study materials for the 2025 exams that have been brought to our attention. We will incorporate these changes in the study material each year. We are always happy to receive feedback from students, particularly details concerning any errors, contradictions or unclear statements in the courses. If you have any such comments on this course please email them to <a href="CM1@bpp.com">CM1@bpp.com</a>.

This document was last updated on 4 April 2025.

Page 2 CM1: Corrections

#### 2 Revision Notes

#### Joint lives – Booklet 8

Corrections added on 14 March 2025

#### Page 63, Solution 16, Subject CM1, September 2020, Question 4

There are two corrections to the solution to this question. In both cases, the correction relates to a symbol used within the solution. In both cases, the numerical workings that followed were correct, and are based on the correct methodology, as if the correct symbol had instead been used. Hence all numerical values, including the final solution, are correct, notwithstanding the corrections to the symbols listed below.

Towards the top of page 63, the expression:

$$12P\ddot{a}_{55:53:\overline{20}|}^{(12)} \approx 12P \left[ \ddot{a}_{55:53:\overline{20}|} - \frac{11}{24} \left( 1 - v^{20} \frac{l_{75}^{(m)}}{l_{75}^{(m)}} \times \frac{l_{73}^{(f)}}{l_{53}^{(f)}} \right) \right]$$

should instead read:

$$12P\ddot{a}_{55:53:\overline{20}|}^{(12)} \approx 12P \left[ \ddot{a}_{55:53:\overline{20}|} - \frac{11}{24} \left( 1 - v^{20} \frac{l_{75}^{(m)}}{l_{55}^{(m)}} \times \frac{l_{73}^{(f)}}{l_{53}^{(f)}} \right) \right]$$

Towards the bottom of page 63, the expression:

$$150,000\overline{A}_{\overline{55:53:20|}} = 150,000 \left( 1 - d\ddot{a}_{55:53:\overline{20|}} - v^{20} \frac{I_{75}}{I_{55}} \frac{I_{73}}{I_{53}} \right)$$

should instead read:

$$150,000A_{\overline{55:53:20|}} = 150,000 \left( 1 - d\ddot{a}_{55:53:\overline{20|}} - v^{20} \frac{I_{75}}{I_{55}} \frac{I_{73}}{I_{55}} \right)$$

#### Mortality profit – Booklet 9

Corrections added on 14 March 2025

#### Page 19, Question 10, Subject CM1, April 2019, Question 13

The number of endowment assurance policies in force on 1 January 2018 should be 15,203 rather than 5,203. This is a typographical error.

15,203 matches the actual question from the 2019 examination paper, as well as the solution given on pages 45 and 46.

CM1: Corrections Page 3

### 3 ActEd Solutions with Exam Technique (ASET) and The Vault

#### **September 2020 – Paper A Solutions**

Correction added on 14 March 2025

#### Page 7, Solution 4

In the equations immediately under the text box, the expression:

$$12P\ddot{a}_{55:53:\overline{20}|}^{(12)} \approx 12P \left[ \ddot{a}_{55:53:\overline{20}|} - \frac{11}{24} \left( 1 - v^{20} \frac{l_{75}^{(m)}}{l_{75}^{(m)}} \times \frac{l_{73}^{(f)}}{l_{53}^{(f)}} \right) \right]$$

should instead read:

$$12P\ddot{a}_{55:53:\overline{20}|}^{(12)} \approx 12P \left[ \ddot{a}_{55:53:\overline{20}|} - \frac{11}{24} \left( 1 - v^{20} \frac{l_{75}^{(m)}}{l_{55}^{(m)}} \times \frac{l_{73}^{(f)}}{l_{53}^{(f)}} \right) \right]$$

The numerical workings that follow are correct, and are based on the correct methodology, as if the correct symbol had instead been used. Hence all numerical values, including the final solution, are correct, notwithstanding the correction to the symbol shown above.

#### **September 2024 – Paper A Solutions**

Correction added on 4 April 2025

#### Page 17, Solution 7

At the top of the page, there is an expression for  $\ddot{a}_{\overline{30}}$  with an error in the numerator on the second line:

$$\ddot{a}_{30} = \frac{1 - v^n}{d}$$

$$= \frac{1 - 1.07^{-30}}{0.071859 / 1.071859}$$

$$= 13.0561$$

The second line should instead read:

$$=\frac{1-1.071859^{-30}}{0.071859/1.071859}$$

Note that the numerical result of 13.0561 is correct and therefore all numerical values, including the final solution are correct.

Page 4 CM1: Corrections

# 4 Paper A Course Notes

# **Chapter 2**

Correction added on 14 March 2025

#### Page 36

The final two lines of the page currently read as follows:

Accumulating £261.60 for 9 months at this rate gives:

$$£260.61 \times 1.21550625^{9/12} = £302.83$$

The reference to £260.61 within the final line should instead be £261.60. The final figure of £302.83 does correctly reflect this.

CM1: Corrections Page 5

# 5 Mock exam

# **Paper A solutions**

Correction added on 19 March 2025

Question 15 (ii)

The first sentence of the solution to Question 15 (ii) incorrectly refers to the reserve at the end of 2018. This should be the reserve at the end of 2023.

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