# Subject CM1

## Corrections to 2021 study material

## 1    Comment

This document contains details of any errors and ambiguities in the Subject CM1 study materials for the 2021 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 CM1@bpp.com.

This document was last updated on **10 June 2021**.

# 2    Paper A Course Notes

## Chapter 11

**Correction added on 8 February 2021**

**Page 21**

In the solution to (i)(a) at the bottom of the page, there is a $-1$ missing from the calculation of $i_C$. It should read:

$$100,000 = 140,000(1+i_C)^{-5} \quad \Rightarrow \quad i_C = \left(\frac{140,000}{100,000}\right)^{1/5} - 1 = 7.0\% \text{ (to 1 dp)}$$

## Chapter 17

**Correction added on 10 June 2021**

**Page 30**

The first line to solution 17.8 should read:

$$\bar{A}_{50:\overline{2}|} = \bar{A}^{\,1}_{50:\overline{2}|} + A_{50:\overline{2}|}^{\;\;\;1}$$

The rest of the solution remains the same.

## Chapter 22

**Correction added on 4 January 2021**

**Page 5**

In the first line underneath the solution, $_t q_x$ should be $_t q_y$. So the sentence should read:

'Using the solution above and writing $_t q_y = \int_{s=0}^{s=t} {_s p_y}\, \mu_{y+s}\, ds$, we see that:'

## Chapter 27

**Alert added on 11 August 2020**

**Page 40**

The question on this page requires the calculation of net premium reserves for a with-profits policy. This type of calculation is not on the CM1 syllabus, however, students should be able to calculate the required reserves with the following additional information:

- Net premiums do not include bonuses or expenses.

- Net premium reserves only account for bonuses that have already been declared.  Any future bonuses that have not yet been declared are excluded from the reserve calculation.

# 3 ASET (2014 – 17)

## April 2017 CT5 Solution 3

**Correction added on 11 August 2020**

**Page 32**

For part i(c), the lightbulb box states that the only way of calculating the expected present value (EPV) of the endowment assurance in this question is to add together the EPV of the term assurance and the EPV of the pure endowment. However, this could also be calculated by calculating the EPV of the temporary annuity $\ddot{a}_{64:\overline{10}|}$ and applying the premium conversion formula.

This box should therefore say:

*As the age and term do not add up to 60 or 65, probably the most efficient way of calculating this from the Tables is by adding together the EPV of the term assurance and the EPV of the pure endowment.*

# 4 ASET (2019 – 20)

## September 2020, Paper A, Solution 4

**Correction added on 29 March 2020**

When evaluating the expected present value the benefits, on two occasions, a bar appears over the $A$ representing the term assurance. This is incorrect, as the benefits are payable at the end of the year of the first death.

The correct notation for the expected present value of the benefits is:

$$150,000 A^{1}_{\overline{55:53:20}|}$$

All the calculations shown are correct.