

# ACTEX MLC Study Manual

## Spring 2015 Edition

### Errata

15 March 2015

C3 -24 Example 3.9: Assume  $i = 0.06$ .

T1-5 #10 1<sup>st</sup> line: delete “20-year”

T1-6 #12 Table: 16 should be placed as the number of withdrawals during year 1 (instead of year 2)

(ii) ... in year 1 ... year 2.

(iii) survive to end of year 2 as die during year 2.

T1-9 #16 Options: (A) 0.03 (B) 0.04 ... (E) 0.07

T1-10 #18 Last sentence: paid by January 2, 2016.

T1-18 #12 (i) the last expression should read  $l_3^{(\tau)} = 28$

T1-20 #16 Replace the solution with the following

$$\begin{aligned} {}_5P_0^{00} \times {}_{10}P_5^{0 \rightarrow 1 \rightarrow 2} &= {}_5P_0^{00} {}_{10}P_5^{0 \rightarrow 1 \rightarrow 2} = {}_5P_0^{00} {}_{10}P_0^{0 \rightarrow 1 \rightarrow 2} \\ &= \exp(-0.12 \times 5) \int_0^{10} \int_0^s e^{-0.12t} \times 0.08 \times e^{-0.05(s-t)} \times 0.05 dt ds \\ &= e^{-0.6} 0.08 \times 0.05 \int_0^{10} e^{-0.05s} \frac{1 - e^{-0.07s}}{0.07} ds \\ &= e^{-0.6} \frac{0.4}{7} \times \left( \frac{1 - e^{-0.5}}{0.05} - \frac{1 - e^{-1.2}}{0.12} \right) = 0.0642 \end{aligned}$$