

Errata and Updates for ASM Exam LTAM (First Edition) Sorted by Date

- [1/25/2018] On page 288, two lines above Example 14G, add “for” between “benefits” and “a coverage”.
- [1/25/2018] On page 530, 5 lines from the bottom of the page, change 45 to (45).
- [1/25/2018] On page 681, on the fourth line of Example 34C, change “age (50)” to “age 50”.
- [1/8/2018] On page 2028, in the solution to part (a) of question 1, on the third line, delete the minus sign in front of $(0.04 + 0.01t)dt$.
- [1/8/2018] On page 2028, in the solution to part (c)(i) of question 1, replace ${}_t p_{40+t}^{00}$ with ${}_t p_{40}^{00}$. On page 2029, in the solution to part (c)(ii) of question 1, replace ${}_t p_{40+t}^{01}$ with ${}_t p_{40}^{01}$. Also on page 2029, in the solution to part (d) of question 1, replace the last line with the following two lines:

$${}_{0.2}p_{40}^{01} = 0.003 + 0.1((0.996)(0.03) - 0.003(0.01 + 0.012)) = 0.005981$$

The expected number of disableds is $100(0.005981) = \boxed{0.5981}$.

- [1/8/2018] On page 2038, in the solution to question 1(a)(i), on the first line, change $a_{50:\overline{10}|}$ to $\ddot{a}_{50:\overline{10}|}$. In the solution to question 1(d), on the second line, change $A_{51:\overline{9}|}$ to $A_{51:\overline{19}|}$ and $\ddot{a}_{51:\overline{9}|}$ to $\ddot{a}_{51:\overline{9}|}$.
- [1/8/2018] On page 2042, in the solution to question 6(a), on the first line, change ${}_j p_x^{0j}$ to ${}_t p_x^{0j}$.
- [1/7/2018] Replace the line for the solution to question 3 with “Question 3 is not on the current LTAM syllabus.”
- [1/6/2018] On page 2030, replace the solution to part (d) of question 2 with

The single premium we want is the present value of benefits for death at time $x > 10$, where the probability of death between time 10 and time x equals 40%, since the present value of benefits is less than the present value of benefits for death at time x when death occurs before time 10 or after time x . In other words, we want x such that

$$\frac{l_{50} - l_x}{l_{40}} = 0.4$$

Now, $l_{40} = 9,313,166$ and $l_{50} = 8,950,901$, so we want

$$8,950,901 - l_x = 0.4(9,313,166) = 3,725,266.4$$

$$l_x = 5,225,635.6$$

But the age y such that $l_y = 5,225,635.6$ is greater than 75. So it suffices to cover the loss if death occurs after age 75 or before time 10, and the highest benefit payable for deaths at those times is the pure endowment benefit payable for deaths after age 75. This has present value $50,000/1.06^{35} = \boxed{6,505.26}$.

- [12/4/2017] On page 947, on the second line, in the first integral, change μ_{x+t} to μ_{x+t}^{01} .