S. BROVERMAN EXAM MLC STUDY GUIDE - FALL 2007

Updated September 23, 2007

Page LC-151, #10, answers D and E should be

D) $\frac{1}{d} \cdot [A^{1}_{x:\overline{n}|} - v^{n+1}\,{}_{n}q_x]$ E) $\frac{1}{d} \cdot [A_{x:\overline{n}|} - v^{n+1}\,{}_{n}p_x]$

Page LC-169, #30 solution, line 2 should be

$1000A_{45} - 500\,{}_{20|}A_{45} = 1000A_{45} - 500v^{20}\,{}_{20}p_{45}\,A_{65} = 1000A_{65} - 500v^{20}\,\frac{\ell_{65}}{\ell_{45}}\,A_{65}$

Page LC-170, #34 solution, 4621 should be 4261 in lines 7, 10, 11, 12 and 14 and the answer should be 4453 (not 4455)

Page MLC07-14, #8 solution, third last line should be

${}_{\infty}q^{1}_{\overline{xy}} = \int_0^{\infty} {}_{t}p_x \mu_x(t)\,{}_{t}p_y\,dt = \int_0^{\infty} e^{-.7t}(.7)e^{-.6t}\,dt = \frac{.07}{.13} = .538462$.

Page MLC07-20, #29 solution, last 2 lines should be

$A^{1}_{30:\overline{30}|} = .10248 - (.29374)(.51081)(.36913) = .04709$.

Solving for Q results in $Q = \frac{200(1.672)}{1-.04709} = 351$. Answer: A