MAP 4175 / 5177 Name:_____

Test 6 Date: October 12, 2016

Each problem is worth 10 points. Show all work for full credit, and use correct notation. Simplify answers completely. See other side for additional problems.

1. Given ${}_tp_{\overline{xy}} = e^{-.04t}$, determine $\overset{o}{e}_{\overline{xy}}$

2. Determine the value of $T_{\overline{xy}}$ if $T_x + T_y = 40$ and $T_x T_y = 398.56$.

3. Given mortality for (40) follows a DML(90) model, determine $\overset{o}{e}_{40:\overline{10}|}$

4. Given ${}_tp_{xy} = (1.03)^{-t}$, determine $e_{xy:\overline{15}|}$

5. Given $q_{80} = .10$ and $q_{81} = .11$ determine $e_{80:\overline{2}|}$