MAP 4176 / 5178 Name:______________________________

Test 1 Date: January 16, 2019

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.

Unless told otherwise, use the actuarial assumptions in the L-TAM tables to determine the actuarial present value of each annuity described.

1. a 20-year deferred whole life annuity due of 5,000 issued to (25)

2. a 10-year temporary annuity immediate of 10,000 issued to (35)

3. a 15-year temporary annuity due of 1,000 issued to (30)

4. a 20-year certain-and-life annuity due issued to (20) with annual payments of 3,000

5. Using L-TAM mortality and an annual effective interest rate of 6% for the first two years, and 5% thereafter, determine the actuarial present value of a whole life annuity due with annual payments issued to (28) that pays 100 in the first year, 200 in the second year, and 300 per year for each year thereafter.