

## Second Exam Topic List

What is an annuity immediate and an annuity due – know and be able to use the formulas for the present value and future value of each

What is a deferred annuity and how are its present or future values determined?

\*\*Under compound interest, how do we view the value of an annuity ( or another payment stream) from some other vision point – be able to move the vision point down or up in time

What is a perpetuity (immediate and due)? – be able to find and use its present value

Be able to solve an annuity problem for the length of the annuity or the interest rate of the annuity.

When interest rates vary over time, how are the PV and FV computed under the portfolio and under the yield curve methods

Find the PV and FV for an annuity in which the payment period and the interest conversion period are different

Be able identify and to find the PV (FV) of an annuity in which the payments vary in arithmetic progression and/or in geometric progression.

\*\*Be able to convert an interest rate into an effective interest rate for a shorter or longer period.

Be able to find the present value or future value in a problem setting in which payments vary in blocks.

What is a continuous annuity? Be able to find the PV and FV for a continuous annuity in which the payments may or may not be spread evenly over time. Know how to use the force of interest in these settings and the special case of a constant force of interest.

What is an outstanding loan balance and how do you compute its value right after a payment is made?

What is the amortization description of a loan? What is the purpose of an amortization schedule – be able to construct one and know how to find the elements within the schedule

What is the sinking fund method of describing a loan? How is its loan schedule created and its payment amount determined?

How are the amortization method and sinking fund method used when the payment amounts differ?

\*\* important general skills