## Practice exam questions - Pre tax proforma <br> Note: Credit will be awarded only if you document your solution.

You have an opportunity to purchase a mixed use retail (on the ground floor) and office (on the second floor) property for $\$ 600,000$. After checking with your banker you learn you can get a loan for $70 \%$ of the value at $8 \%$ interest. Payments will be monthly, based on a 25 year amortization period, but a balloon payment of the outstanding balance will be due after 5 years though there is no prepayment penalty for an earlier payoff. Leases on the retail portion were signed two years ago and run for 5 more years. The office portion lease has just been renewed for 5 more years, though four months of free rent were given to the tenants as signing bonuses. You expect to earn $\$ 250$ per month in miscellaneous income from your office space which will increase at the rate of inflation. Because the leases are carefully written, and each tenant has corporate backing, the vacancy and collection losses are assumed to be $5 \%$ on all leases. Operating costs (projected to be $\$ 50,000$ over the next year) are assigned according to the amount of rentable space the tenant occupies. The CPI is projected to be $4 \%$ each year over the next 5 years, and operating costs are projected to increase at $5 \%$ each year. You plan to sell this building after 3 years at a $9 \%$ cap rate with $7 \%$ selling expense.

Assumptions:
Office space: Gross area $=3250 \mathrm{sq}$. ft . of which 250 sq . ft . is vertical penetrations and utilities spaces. 250 sq.ft. is used as common areas
Contract rent on office space $=\$ 16 /$ sq. ft., and increases at $1 / 2$ of the CPI rate.
Expense stop for office space $=\$ 8.00 / \mathrm{sq}$. ft.
Retail space: Gross area $=3800$ sq. ft. of which 300 sq. ft. is vertical penetrations and utility spaces. 300 sq.ft. is taken up in common areas
Base rent on retail $=\$ 14 /$ sq. ft. fixed over life of lease.
Overage rent = 5\% of sales in excess of \$400,000
Expense stop for retail space $=\$ 6.00 /$ sq. ft .
Projected Sales distribution year 1 (future sales are projected to increase at the CPI rate)

| Probability $\quad$ Sales |
| :---: | ---: |
| $0.3 \quad \$ 300,000$ |

$0.4 \quad 500,000$
$0.3 \quad 700,000$
Write out a complete 3 year proforma for this building (NOI will be needed through year 4)

1. What is the expected GPI from the retail space in the first year? in the 4th year? ([yr1= 61,423 yr4=68,227]
2. What is the effective net rent for the office space? (use a $10 \%$ discount rate) [ $\left.\$ 7.39 / \mathrm{ft}^{2}\right]$
3. What is the going in cap rate on this building? [6.93\%]
4. What is the cash on cash return for this building? [1.50\%]
5. What is the DCR each year? [1.07, 1.48, 1.53]
6. What is NPV of this investment using a 12 percent discount rate? What is the IRR? [15,128, 15.2\%]
7. Does this building exhibit positive or negative leverage? (Support your answer).
8. Do you expect the Year 6 NOI to be higher or lower than the Year 5 NOI?
