Question 3. (20 Marks)

(a) (i) What are the advantages and disadvantages of long-term debt financing? (4 marks)

(ii) According to the fundamental principle of intrinsic value, how does a firm value an asset? (4 marks)

(iii) Suppose you buy a 9.75 percent coupon, 30-year bond when the bond is first issued. If interest rates suddenly fall to 8.25 percent, what happens to the value of your bond? Why? Suppose your bond is convertible. Does your answer change? (Note: You are not required to perform any mathematical calculations. Discuss the relationships only.) (4 marks)

(b) (i) What is the market value of a zero coupon bond with 5 years to maturity? The bond was originally sold with a yield to maturity equal to 11 percent, but the market rate today is 9 percent. (2 marks)

(ii) Determine the value of a LASKA 6.25% cumulative preferred stock, series D, par value $75 to an investor who requires a 9.5% rate of return on a security with this risk. (3 marks)

(iii) WPI has a bond issue outstanding that has a coupon rate of 10%, and a current yield of 11%. The yield to maturity on this bond is 12%. What is the market price, to the nearest dollar, of the WPI bond if it pays interest semi-annually and has 10 years to mature? (3 marks)

Question 4. (20 marks)

(a) (i) What are the principles that should be applied when estimating cash flows for capital budgeting purposes? (3 marks)

(ii) What is the net present value rule? (2 marks)

(iii) Explain why the internal rate of return method is more popular than the net present value method. What are some potential problems with relying on the IRR method? (3 marks)

(b) Com-Cat is considering expanding their current production facility. This year Com-Cat had an operating income (EBIT) of $760,000, interest expenses of $120,000, and depreciation expenses of $45,000. Capital expenditures (purchase and installation of equipment) of $320,000 will be required to support the expansion. Next year, after the expansion is completed, operating income is expected to be $880,000, interest expenses will remain at $120,000, but depreciation will increase to $61,000. These cash flow changes are expected to continue for the next 7 years. To further support the expansion, cash is expected to increase by $5,000, accounts receivable by $12,000, inventories by $8,000, and accounts payable by $7,000. What is the net present value and modified internal rate of return attributable to this project, if the tax rate is 40% and the firm’s cost of capital is 12% (Assume a net salvage value of zero ($0) on the investment)? Should the firm go ahead with the expansion? (12 marks)