Exercise Set: Cap. Structure – Limits of Debt

1) Which of the following factors is not included in the Modigliani-Miller's WACC calculation?
    a. Financial leverage risk affecting the cost of equity
    b. All the listed factors are included in MM's WACC
    c. Interest tax shield
    d. Cost of debt cheaper than cost of equity
    e. Costs of Financial Distress
2) Which of the following sentences is false?
    a. High levels of financial leverage reduce the management flexibility in a company
    b. Some financial leverage might be beneficial due to the higher degree of monitoring
    c. Increasing financial leverage in a company will always reduce the value of a company in the real business world
    d. In a world with taxes, financial leverage will matter for the value of the company
    e. Financial distress costs will increase with more financial leverage and that will reduce the value of the company
3) Managers of an unlevered firm expected to generate free cash flow of €10 million each year in perpetuity are considering issuing €25 million of permanent 10% interest debt and using the proceeds to repurchase equity. The firm currently holds no debt and has 1 million shares outstanding. The required return on the firm's unlevered free cash flow is 10%. Assume all assumptions of MM theory hold.
    a. What is the value of the unlevered firm? What is the price per share?
    b. What is the value of the firm if decides to issue debt and repurchase shares? What is the price per share now?
    c. If you hold 10 shares of the firm and continue to hold them after the debt issue, what happened to your wealth?
4) Consider the same unlevered firm from the previous exercise considering issuing debt. Now assume there are taxes and that the firm's tax rate is 35%. Furthermore, if the firm issues the debt, it expects to lose some of its best employees due to a higher risk of distress, and thus estimates a loss of €1.2 million of free cash flow per year.
    a. What is the value of the firm if decides to issue debt and repurchase shares?
    b. What is the NPV of the debt issue?
    c. What is the price per share now? Explain whether managers of the unlevered firm should issue the debt.