Quiz 2: Corporate Finance

Answer all questions and show necessary work. Please be brief. This is an open books, open notes exam.

1. You are trying to estimate the cost of capital for Mykonos Shipping, and have collected the following information:
   - The firm has $300 million in interest-bearing debt on its books, on which it pays $15 million in annual interest expenses. The weighted average maturity of the debt is 5 years.
   - The bond rating for the firm is BBB, and the default spread over the T.Bond rate is 2.5%.
   - There are 100 million shares outstanding, trading at $15 a share.
   - The unlevered beta for other shipping firms is 0.80.
   - The ten-year T.Bond rate is 5.2% and the market risk premium is 5.17%.
   - The marginal tax rate is 40%.

a. Estimate the market value of the interest-bearing debt. (2 points)
b. Estimate the cost of equity for the firm.  

(1 point)

c. Estimate the cost of capital for the firm.  

(1 point)
2. You are reviewing a project analysis done by another analyst at your firm, and you note that he has computed a net present value of $100 million for the 3-year project. The project has expected revenues of $1 billion each year for the next 3 years and a cost of capital of 12%. You do notice two mistakes in the analysis

   a. The analyst forgot to include working capital requirements when computing the net present value. You estimate that working capital will be 10% of revenues and will have to be invested at the beginning of each year. In addition, you believe that you will be able to salvage 100% of working capital at the end of the project life.

   b. You also notice that the analyst expensed the initial investment of $1.5 billion in the project, when he should have capitalized it and depreciated it straight line down to a salvage value of zero.

The marginal tax rate is 40%.

a. Estimate the effect on the net present value of incorporating working capital into the analysis. (2 points)
b. Estimate the effect on the net present value of capitalizing and depreciating the initial investment, rather than expensing it. (3 points)

c. Estimate the correct net present value of the project, with working capital incorporated and capitalizing initial investment. (1 point)