Quiz 1: Corporate Finance

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

1. In the following questions, please make only one choice per question. You can add a sentence clarifying your choice, but only if you want to. (1/2 point each)
   a. The essence of corporate governance, as defined in corporate finance, is that stockholders have the power to choose/replace managers. Given this definition, which of the following statements best characterizes a good corporate governance system?
      i. Stockholders have the option to replace all managers every year.
      ii. Stockholders have the option to replace only bad managers every year
      iii. Stockholders replace all managers every year
      iv. Stockholders replace only bad managers every year
      v. None of the above

   Rationale:

   b. One concern that banks have when they lend to companies is that their interests are different from those of the stockholders running these companies. If you move to a system where lenders’ interests are unprotected, which of the following would you expect to observe on lending and interest rates?
      i. Less money will be lent at lower interest rates
      ii. More money will be lent at higher interest rates
      iii. No effect on either borrowing or interest rates
      iv. More money will be lent at lower interest rates
      v. Less money will be lent at higher interest rates

   Rationale:

   c. There is evidence that initial public offerings earn much lower returns in the five years after the offering, after adjusting for risk, than seasoned stocks (otherwise similar companies in their peer groups that had publicly traded prior to the IPO). This behavior is incompatible with an efficient market.
      i. True
      ii. False

   Rationale:

   d. There is also evidence that the stock price “pops” (jumps about 10-15% from the offering price) on the offering date for initial public offerings (IPOs). Given the definition of efficient markets (that the market price reflects available information), this price jump is incompatible with an efficient market.
      i. True
      ii. False

   Rationale:
2. You are working with a Hungarian company on estimating its hurdle rate, in Hungarian Forint. You are consequently trying to estimate a riskfree rate and equity risk premium to use and have collected the following information:

- The Hungarian government has ten-year Forint denominated bonds trading, with a market interest rate of 9% and ten-year Euro-denominated bonds trading, with a market interest rate of 3.75%. The US $ Treasury bond rate is 2% and the ten-year German government Euro-denominated bonds trade at an interest rate of 1.75%. Hungary has identical local currency and foreign currency sovereign ratings.
- The standard deviation in the Hungarian Government bond is 18% and the standard deviation in the Hungarian equity index is 24%.
- You have estimated a historical risk premium for Hungary, using 5 years of data, of 12% and a historical risk premium, using 100 years of data, for the US, of 5%.
  a. Estimate the riskfree rate in Hungarian Forint. (1 point)
  
  b. Estimate the total equity risk premium for Hungary. (2 points)
3. The following is the Bloomberg beta page for Hormel Foods, using five years of monthly data.

Hormel Foods has 250 million shares, trading at $30 a share, and $2.5 billion in total debt outstanding in January 2012. Over the five years of the regression, Hormel had an average market debt to equity ratio of 20%. The marginal tax rate is 40%.

a. Estimate the monthly Jensen’s alpha for Hormel Foods, given that the average annualized T.Bill rate over the five years was 1.2%.

   (1 point)
b. Assuming that the raw beta is a correct assessment of the beta of Hormel during the regression period, estimate the unlevered beta for Hormel Foods for the period. (1 point)

c. Now assume that Hormel Foods is planning to split into two businesses, the packaged food business that will sell through grocery stores, and a premium food business, which will focus on brand name products; the packaged food business accounts for 60% of Hormel’s current value and the premium food business accounts for the rest. Assuming that all of the debt will stay with the packaged food business and that the unlevered beta for the premium food business is 0.70, estimate the levered beta for the packaged food business. (3 points)