## Session 9a: Post Class tests

- 1. The beta for a firm should reflect the "discretionary" nature of its products and/or services; the more discretionary a product or service is, the higher you would expect the beta to be. Given this principle, rank the following categories of retail firms from lowest to highest beta:
  - a. Discount retailer (Walmart)
  - b. High End Department store (Bergdorf Goodman)
  - c. Department store (Macy's)
  - d. Grocery store (Safeway)
  - e. Luxury retailer (Tiffany's)
- 2. A company is considering outsourcing its personnel services. By doing so, it will replace the fixed cost of having a human resources department with an hourly fee that it will be paying a vendor who will provide the services. Holding all else constant, what effect would this action have on the beta for the company?
  - a. It will increase the beta
  - b. It will decrease the beta
  - c. It will not change the beta
- 3. Gepla Software is a steel company with 100 million shares trading at \$25/share and \$500 million in debt. You have run a regression of the firm's stock returns against a market index using the last 5 years of data and have estimated a beta of 1.06. If the regression beta is right, the average debt to equity ratio for the company over the last 5 years was 10% and the marginal tax rate is 40%, estimate the beta for the equity, given its current financial leverage.
  - a. 1.12
  - b. 1.06
  - c. 1.19
  - d. 1.10
  - e. 1.00
- 4. Arnold Entertainment owns movie complexes and has 10 million shares trading at \$10/share and \$40 million in debt. Its current equity beta (levered) is 0.93 and it plans to raise fresh equity and retire all of its debt. If it does so and the marginal tax rate is 40%, what will its beta be after the transaction?
  - a. 0.80
  - b. 0.79
  - c. 0.75
  - d. 1.15
  - e. None of the above
- 5. Reefer System has a market capitalization of \$ 1 billion and it will be buying Lyman Technology for \$ 500 million, with a combination of \$250 million in debt and \$250 million in stock. You can assume that neither company had debt or cash prior to the transaction, and that the marginal tax rate for all companies is 40%. If Reefer's beta prior to the transaction was 1.20 and Lyman's beta was 0.90, estimate the beta in Reefer's equity after the transaction.
  - a. 1.10
  - b. 1.23

- c. 1.19
- d. 1.14
- e. None of the above