Quiz 2: Valuation

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

1. You have been asked to assess the value/share in Raritan Inc., a company with a 10% holding in Chesapeake Inc. (recorded as a minority holding) and with a 75% holding in Tarrant Inc. (consolidated in Raritan financials). You have completed intrinsic valuations of all three companies and the results are summarized below, with the cash and debt at each of the companies (in millions of US$):

	Raritan (Consolidated)	Chesapeake	Tarrant
Value of operating assets (PV of FCFF at WACC)	$3,000	$2,000	$2,500
Cash	$500	$200	$300
Debt	$1,000	$700	$800

If there are 100 million shares outstanding in each of the three companies, <u>estimate the value per share in Raritan Inc</u>. (2 points)

2. You are reviewing the valuation of Benadryl Inc., a small pharmaceutical company. The analyst has estimated a value of $1.8 billion for the company, assuming that the firm is mature, growing at the inflation rate (1.5% a year) each year in perpetuity while maintaining a cost of capital of 7.5% (forever). In arriving at his valuation, he has assumed the firm will not need to reinvest any of its after-tax operating income since it is growing only at the inflation rate. If you believe that the firm will be able to generate an excess return (a return on its capital in excess of the cost of capital) of 4.5% in perpetuity, estimate the correct value for the firm. (3 points)

3. You have been asked to review the valuation of shares in Cognac Inc., an alcoholic beverage maker in stable growth. The analyst has estimated an intrinsic value per share of $10 per share but he obtained that number by dividing the total value of equity by the fully diluted number of shares (including options outstanding). If the company has 125 million shares outstanding and 25 million options that have an exercise price of $8 per share and a value per option of $5, estimate the correct value of equity per share in the company. (2 points)

4. You are valuing MediaGazer, a young start up. The company generated $200 million in revenues in the most recent year and you have estimated the following for the company:

	Last year	1	2	3
Revenues (in millions)	$200	$500	$1,500	$2,500
Operating Margin		-10%	-5%	10%
Sales/Capital Ratio	2.00	2.00	2.00	2.00
Cost of capital		15%	12%	10%

The company has a net operating loss of $50 million that it is carrying forward and faces a 40% tax rate, once it starts making taxable income.

a. Estimate the free cash flow to the firm each year for the next 3 years. (2 points)

b. Estimate the present value of each of the cash flows for the next 3 years. (1 point)