1)

A corporation has the following balances sheet liabilities

|  |
| --- |
| Current Liabilities $2,000  Long term debt $5,000  Prefered stock $2,000  Common stock $8,000  Retained earnings $3,000  $20,000 |

Currently, the riskless interest rate is 8%: The corporate tax rate is 50%: the current price of a share of common stock is $20: and dividends have been level at$1 per share per year for many years.

Recently, company executives have considered expanding the existing business by acquiring a competitor. To do so, they must calculate the WACC of the firm and estimate the NPV of the acquisition. Because the acquisition is of the same risk as the firm, the WACC (unlevered equity cost) can be used.

A financial executive has used the following procedure to calculate the WACC .Debt and preferred stock are fixed claims offering a fairly secure constant return, and so their before tax cost is assumed to equal the riskless rate .The dividend yield has held constant at about 5%: so this is used as the cost of new and retained equity . Finally the balance sheet shows the firm to be composed of 25%, debt, 10% preferred, 55% equity (common plus retained), and 10% current liabilities. Current liabilities are assumed to be costless; therefore the WACC is 4.55%. Comment on this procedure.

2

A corporation’s securities have the following beta’s and market values

|  |  |  |
| --- | --- | --- |
|  | Beta | Market Value |
| Debt | 0.1 | 100,000 |
| Preferred | 0.4 | 200,000 |
| Common | 1.5 | 100,000 |

Calculate the following figures given a riskless interest rate of 10% and market risk premium of 5%

A= Discount rates for each security

B= The asset beta for the corporation

C= The weighted average cost of capital

D= The discount rate for the unlevered asset