Question One: (15 Marks)

Tick true or false:

1. "Risk aversion" implies that investors require higher expected returns on riskier than on less risky securities.

2. Diversification will normally reduce the riskiness of a portfolio of stocks.

3. An individual stock’s diversifiable risk, which is measured by its beta, can be lowered by adding more stocks to the portfolio in which the stock is held.

4. A stock with a beta equal to -1.0 has zero systematic (or market) risk.

5. As a firm’s sales grow, its current assets also tend to increase. For instance, as sales increase, the firm’s inventories generally increase, and purchases of inventories result in more accounts payable. Thus, spontaneous liabilities that reduce AFN arise from transactions brought on by sales increases.

6. To determine the amount of additional funds needed (AFN), you may subtract the expected increase in liabilities, which represents a source of funds, from the sum of the expected increases in retained earnings and assets, both of which are uses of funds.

7. The capital intensity ratio is the amount of assets required per dollar of sales and it has a major impact on a firm’s capital requirements.

8. The minimum growth rate that a firm can achieve with no access to external capital is called the firm’s sustainable growth rate. It can be calculated by using the AFN equation with AFN equal to zero and solving for g.

9. The optimal distribution policy strikes that balance between current dividends and capital gains that maximizes the firm’s stock price.

10. The announcement of an increase in the cash dividend should, according to MM, lead to an increase in the price of the firm’s stock.

11. Stock dividends and stock splits should, at least conceptually, have the same effect on shareholders’ wealth.

12. Provided a firm does not use an extreme amount of debt, financial leverage typically affects both EPS and EBIT, while operating leverage only affects EBIT.

13. If Miller and Modigliani had incorporated the costs of bankruptcy into their model, it is unlikely that they would have concluded that 100% debt financing is optimal.

14. If a firm utilizes debt financing, an X% decline in earnings before interest and taxes (EBIT) will result in a decline in earnings per share that is larger than X.

15. A firm’s capital structure does not affect its calculated free cash flows, because FCF reflects only operating cash flows.
22. Last year Emery Industries had $450 million of sales and $225 million of fixed assets, so its FA/Sales ratio was 50%. However, its fixed assets were used at only 65% of capacity. If the company had been able to sell off enough of its fixed assets at book value so that it was operating at full capacity, with sales held constant at $450 million, how much cash (in millions) would it have generated?

a. $74.81  b. $78.75  c. $82.69  d. $86.82  e. $91.16

23. Howton & Howton Worldwide (HHW) is planning its operations for the coming year, and the CEO wants you to forecast the firm's additional funds needed (AFN). The firm is operating at full capacity. Data for use in the forecast are shown below. However, the CEO is concerned about the impact of a change in the
payout ratio from the 10% that was used in the past to 50%, which the firm’s investment bankers have recommended. Based on the AFN equation, by how much would the AFN for the coming year change if HHW increased the payout from 10% to the new and higher level? All dollars are in millions.

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last year’s sales = $S_0$</td>
<td>$300.0</td>
</tr>
<tr>
<td>Sales growth rate = g</td>
<td>40%</td>
</tr>
<tr>
<td>Last year’s total assets = $A_n*$</td>
<td>$500.0</td>
</tr>
<tr>
<td>Last year’s profit margin = PM</td>
<td>20.0%</td>
</tr>
<tr>
<td>Initial payout ratio</td>
<td>10.0%</td>
</tr>
</tbody>
</table>

a. $31.9  b. $33.6  c. $35.3  d. $37.0  e. $38.9

24. Last year Handorf-Zhu Inc. had $850 million of sales, and it had $425 million of fixed assets that were used at only 60% of capacity. What is the maximum sales growth rate the company could achieve before it had to increase its fixed assets?

a. 54.30%  b. 57.16%  c. 60.17%  d. 63.33%  e. 66.67%

25. A company expects sales to increase during the coming year, and it is using the AFN equation to forecast the additional capital that it must raise. Which of the following conditions would cause the AFN to increase?

a. The company previously thought its fixed assets were being operated at full capacity, but now it learns that it actually has excess capacity.

b. The company increases its dividend payout ratio.

c. The company begins to pay employees monthly rather than weekly.

d. The company’s profit margin increases.

e. The company decides to stop taking discounts on purchased materials.

26. Pate & Co. has a capital budget of $3,000,000. The company wants to maintain a target capital structure that is 15% debt and 85% equity. The company forecasts that its net income this year will be $3,500,000. If the company follows a residual dividend policy, what will be its total dividend payment?

a. $205,000  c. $950,000  e. $3,050,000

b. $500,000  d. $2,550,000
27. Based on the information below, what is Ezzel Enterprises’ optimal capital structure?

a. Debt = 40%; Equity = 60%; EPS = $2.95; Stock price = $26.50.

b. Debt = 50%; Equity = 50%; EPS = $3.05; Stock price = $28.90.

c. Debt = 60%; Equity = 40%; EPS = $3.18; Stock price = $31.20.

d. Debt = 80%; Equity = 20%; EPS = $3.42; Stock price = $30.40.

e. Debt = 70%; Equity = 30%; EPS = $3.31; Stock price = $30.00.

28. The firm’s target capital structure should be consistent with which of the following statements?

a. Maximize the earnings per share (EPS).

b. Minimize the cost of debt ($r_d$).

c. Obtain the highest possible bond rating.

d. Minimize the cost of equity ($r_e$).

e. Minimize the weighted average cost of capital (WACC).

29. Ting Technology has a capital budget of $850,000, it wants to maintain a target capital structure of 35% debt and 65% equity, and it also wants to pay a dividend of $400,000. If the company follows a residual dividend policy, how much net income must it earn to meet its capital budgeting requirements and pay the dividend, all while keeping its capital structure in balance?

a. $904,875  

b. $952,500  

c. $1,000,125  

d. $1,050,131  

e. $1,102,638

30. Dentaltech Inc. projects the following data for the coming year. If the firm follows the residual dividend policy and also maintains its target capital structure, what will its payout ratio be?

<table>
<thead>
<tr>
<th>EBIT</th>
<th>$2,000,000</th>
<th>Capital budget</th>
<th>$850,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest rate</td>
<td>10%</td>
<td>% Debt</td>
<td>40%</td>
</tr>
<tr>
<td>Debt outstanding</td>
<td>$5,000,000</td>
<td>% Equity</td>
<td>60%</td>
</tr>
<tr>
<td>Shares outstanding</td>
<td>$5,000,000</td>
<td>Tax rate</td>
<td>40%</td>
</tr>
</tbody>
</table>

a. 37.2%  

b. 39.1%  

c. 41.2%  

d. 43.3%
Kindly attempt both parts of this question:

1. The financial management literature developed three main theories for dividends preferences of shareholders. Briefly explain these three theories and compare their implications for managers as to which are the best.

2. Discuss trade-off theory as well as signalling theory and compare both of them with the M-M theories.

End of Questions

Good Luck