Exam number __________

FI 3300
Final Exam
Fall 2009

Name: ________________________________

Panther ID# ________________________________

Class Days/Time: _________________________

Instructor: ______________________________

Record your answer on the answer sheet attached to this exam. You have 120 minutes to complete this exam.
1. The goal of the firm is to ______________.
   a. maximize shareholder wealth
   b. create jobs
   c. promote social good
   d. maximize profits
   e. minimize risk

2. Which of the following are all items from the income statement?
   a. net sales, inventories, notes payable
   b. net sales, depreciation expense, advertising expense
   c. cash, depreciation expense, taxes
   d. cash, accounts receivable, inventories
   e. net sales, cost of goods sold, retained earnings

Use the following information on Panther Productions to construct an Income Statement and Balance Sheet for your answers to questions 3 – 8.

<table>
<thead>
<tr>
<th>Panther Productions</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounts payable</td>
<td>$ 70</td>
<td>$ 90</td>
</tr>
<tr>
<td>Accounts receivable</td>
<td>110</td>
<td>130</td>
</tr>
<tr>
<td>Accruals</td>
<td>50</td>
<td>60</td>
</tr>
<tr>
<td>Cash</td>
<td>100</td>
<td>120</td>
</tr>
<tr>
<td>Common stock</td>
<td>90</td>
<td>105</td>
</tr>
<tr>
<td>Cost of goods sold</td>
<td>750</td>
<td>800</td>
</tr>
<tr>
<td>Depreciation expenses</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>Interest expenses</td>
<td>20</td>
<td>25</td>
</tr>
<tr>
<td>Inventory</td>
<td>290</td>
<td>350</td>
</tr>
<tr>
<td>Long-term debt</td>
<td>110</td>
<td>140</td>
</tr>
<tr>
<td>Net fixed assets</td>
<td>80</td>
<td>115</td>
</tr>
<tr>
<td>Net sales</td>
<td>1,000</td>
<td>1,100</td>
</tr>
<tr>
<td>Notes payable</td>
<td>130</td>
<td>150</td>
</tr>
<tr>
<td>Operating expenses</td>
<td>150</td>
<td>165</td>
</tr>
<tr>
<td>Retained earnings</td>
<td>130</td>
<td>170</td>
</tr>
<tr>
<td>Taxes</td>
<td>28</td>
<td>38</td>
</tr>
</tbody>
</table>

3. **Gross Profit** for 2009 is $________.
   a. 110
   b. 120
   c. 275
   d. 285
   e. 300

4. The **times interest earned ratio** for 2009 is ____X.
   a. 3.80
   b. 20.83
   c. 2.28
   d. 4.50
   e. 4.80
5. ROE for 2009 is ____%.
   a. 20.73%
   b. 19.25%
   c. 24.91%
   d. 26.18%
   e. 27.17%

6. Cash flow from operating activities in 2009 is $ _______.
   a. $ 22
   b. $122
   c. $ 16
   d. $116
   e. $-10

7. Cash flow from investing activities in 2009 is $ _______.
   a. $-25
   b. $-30
   c. $-35
   d. $-40
   e. $-50

8. Panther Productions wants to increase sales by 20% in 2010. Assume all assets are at optimal efficiency levels. Panther expects its net profit margin to be 5% in 2010 and they expect to pay dividends of $25. Outside funds needed in 2010 will be $______.
   a. $ 70
   b. $106
   c. $ 93
   d. $ 72
   e. $110

9. If interest rates were negative, which of the following would be true?
   a. Present value would be greater than future value
   b. Future value would be less than present value
   c. Investors would put more money in bank savings accounts
   d. a and b are correct
   e. a and c are correct

10. The value today (t=0) of receiving $5,000 three years from today (t=3) is $_____.
    Assume an interest rate of 6%.
    a. $5,788.13
    b. $4,985.00
    c. $4,319.19
    d. $4,198.10
    e. $5,955.08
11. Assume you deposit $200 per year into an account earning 11%. Assume the first deposit is made exactly one year from today (t=1) and the last deposit is made in exactly 7 years (t=7). The account would be worth $_____ 10 years from today (t=10).
   a. $1,956.65  
   b. $2,675.98  
   c. $1,400.00  
   d. $2,525.48  
   e. $1,897.43

12. Vijai is 23 years old today. He plans to deposit a certain amount into his retirement account today (t = 0) and on each birthday until he turns 65. He plans to withdraw $100,000 per year on each birthday beginning when he is 66 and ending when he is 89. The account will earn 7%. What must the deposits be?
   a. $6,561.54  
   b. $6,693.26  
   c. $4,549.34  
   d. $4,628.90  
   e. $5,000.00

13. Ashleigh bought a house that originally cost $250,000. Her down payment was 20%. It was a 30 year mortgage with a 6% interest rate and monthly payments. What is the remaining balance on her mortgage after 15 years?
   a. $142,097.67  
   b. $143,892.00  
   c. $167,371.45  
   d. $196,875.34  
   e. $287,784.25

14. Chris just bought a brand new Corvette for $78,000. He made no down payment and will make monthly payments of $1,524.14 per months for 72 months. The interest rate on the loan is __________% p.a.
   a. 99.84%  
   b. 0.99%  
   c. 5.99%  
   d. 8.54%  
   e. 11.98%

15. If interest rates increase, then bond prices will ____________.
   a. decrease  
   b. increase  
   c. may increase or decrease  
   d. will not change
16. Assume a bond has 10 years to maturity, pays semi-annually, and has a par value of $1000. Find the coupon rate of the bond if the yield to maturity is 9.2% and the price is $922.62.
   a. 4.000%
   b. 4.500%
   c. 5.000%
   d. 8.000%
   e. 9.000%

17. A firm just paid a dividend of $2.50. If the required rate of return is 14% and dividends are expected to grow at 9% forever, what is the price of the stock?
   a. $40.00
   b. $42.40
   c. $50.00
   d. $53.00
   e. $54.50

18. A firm expects dividends to grow at 20% for the next two years and 5% thereafter. The firm just paid a dividend of $1.50 and the required rate of return is 12%. The stock should sell for $______.
   a. $24.30
   b. $29.16
   c. $30.86
   d. $34.09
   e. $40.91

19. Assume a bond pays semi-annually, has 5 years to maturity, and has a 7.00% coupon. Bond’s yield to maturity is 8.00%. If the bond has a par value of $1,000 then it should sell for $_____.
   a. $ 959.45
   b. $ 960.07
   c. $ 960.44
   d. $ 961.10
   e. $ 1,000.00

20. Assume an analyst increases her estimate of a firm’s dividend growth rate. All else being equal, the analyst’s estimate of the stock value will ________.
   a. increase
   b. decrease
   c. stay the same
   d. a or c
   e. b or c
21. Stock A has a beta of 1.5. Stock B has a beta of 0.9. Stock C has a beta of 1.2. If the economy goes into a recession and the stock market drops, which company would you prefer to own in your portfolio?
   a. A
   b. B
   c. C
   d. Not enough information to determine
   e. A or C

22. Which of the following statements is correct?
   a. If the discount rate is positive, the future value of an expected series of cash flows will always exceed the present value of the same series.
   b. The nominal interest rate compensates people for inflation and postponing consumption.
   c. The present value of a series of cash flows is equal to the sum of all undiscounted cash flows if the discount rate is equal to zero.
   d. Each of the statements above is true.
   e. None of the statements above is true

Use the following information for 23-25. A firm plans to build a plant on land it owns. The firm paid $200,000 for the land 30 years ago. Its current market value is $2,000,000. Construction costs, including machinery, will require an initial outlay of $20,000,000. The project will create sales of $22,000,000 per year for years 1-10. Expenses, not including depreciation, related to the project will be $10,000,000 per year for years 1 – 10. The firm uses straight line depreciation over the 10 year life of the project. Salvage value is $1,000,000. The tax rate is 40%.

23. The initial investment is $_________.
   a. $24,000,000
   b. $24,200,000
   c. $23,000,000
   d. $22,000,000
   e. $22,200,000

24. The incremental operating cash flow in year 5 is $________.
   a. $7,960,000
   b. $7,200,000
   c. $8,000,000
   d. $9,240,000
   e. $8,400,000

25. The incremental total (operating + non-operating) cash flow in year 10 is $______.
   a. $10,240,000
   b. $ 9,400,000
   c. $ 9,000,000
   d. $ 8,960,000
   e. $ 8,200,000
Use the following for questions 26 - 27.

<table>
<thead>
<tr>
<th>Year</th>
<th>Cash Flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>-1,200</td>
</tr>
<tr>
<td>1</td>
<td>300</td>
</tr>
<tr>
<td>2</td>
<td>400</td>
</tr>
<tr>
<td>3</td>
<td>600</td>
</tr>
<tr>
<td>4</td>
<td>800</td>
</tr>
<tr>
<td>5</td>
<td>300</td>
</tr>
</tbody>
</table>

26. Using a discount rate of 10.000%, the NPV of the project is $______.
   a. $ 555.74
   b. $ 586.78
   c. $ 602.35
   d. $ 623.45
   e. $1,200.00

27. The IRR of the project is _____%.
   a. 23.56%
   b. 24.58%
   c. 25.61%
   d. 26.07%
   e. Error 5

Use the information below to answer question 28.

<table>
<thead>
<tr>
<th>Year</th>
<th>Project A Cash Flow</th>
<th>Project B Cash Flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>-1,000</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>900</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>900</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>900</td>
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<tr>
<td>4</td>
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<tr>
<td>5</td>
<td>900</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>900</td>
<td>6</td>
</tr>
</tbody>
</table>

28. Suppose the discount rate is 12% and you have to choose between the following two projects. What is the equivalent annual series for the best project?
   a. $413.55
   b. $440.78
   c. $500.00
   d. $570.77
   e. $584.53
29. If IRR and NPV yield different accept/reject decisions, then one should choose to accept or reject the project based on ________.
   a. IRR
   b. the payback period
   c. NPV
   d. Both IRR and NPV
   e. None of the above

30. A firm is considering adding a new type of soft drink to its existing line of drinks. Which of the following should not be included in calculating incremental cash flows?
   a. The firm expects sales of the new product to be $5,000,000 per year.
   b. Last month, the firm allocated $200,000 per year in order to pay for the rent of the new headquarters office in the country.
   c. The firm must pay $3,000,000 for equipment to produce the new drink.
   d. The firm expects sales of existing drinks to decrease by $500,000 per year because current customers will switch to the new drink.
   e. The property on which the plant will be built has a market value of $10,000,000.
Answer Sheet

Name______________________________________

Panther ID_________________________________

FI 3300 Final Exam December 2009

1. _____  16. _____
2. _____  17. _____
3. _____  18. _____
4. _____  19. _____
5. _____  20. _____
6. _____  21. _____
7. _____  22. _____
8. _____  23. _____
9. _____  24. _____
10. _____  25. _____
11. _____  26. _____
12. _____  27. _____
13. _____  28. _____
14. _____  29. _____
15. _____  30. _____