Managing IP – Financial Principles
IPSI – 2009

Final Examination – 1 hour

This is an open-book examination. You may use the course materials, your lecture notes, a calculator and scratch sheets when necessary. You may use a laptop computer to view the course materials on the CD. Students for whom English is a second language may also use a language dictionary.

The examination comprises:

10 multiple choice questions	(4 points each)	40 points
10 true/false questions	(2 points each)	20 points
8 short answer questions	(5 points each)	40 points
Total Points		100

Mark your answers on these pages. Only these pages will be graded.

Note the attached financial statements for FPLC, Inc.

10 Multiple Choice Questions – There may be more than one correct answer to each question. Circle the letter associated with the correct answers. Be sure you mark **all** of the correct answers.

1. Which of the following factors affect the market value of proprietary technology (trade secrets):

   a. The extent of protection given to maintain secrecy
   b. The extent to which it is embodied in products or services
   c. The existence of competing technologies
   d. The future economic benefits derived from using the technology

2. If we are called upon to render an opinion of damages in a trademark infringement case, we would consider how the alleged infringement affected:

   a. The plaintiff's sales revenue
   b. The profits received by the defendant's sale of infringing products
   c. The royalty that the defendant should have paid to the plaintiff
   d. The market value of the plaintiff's trademarks infringed upon

3. What is the market value (in $ millions) of the FPLC, Inc. monetary assets at December 31, 2008?

   a. $6,538
   b. Unknown, based on financial statements
   c. $1,322
   d. None of the above

4. In the "business enterprise equation," which of the following are equivalent to the value of a business enterprise:

   a. The total assets as shown on the balance sheet
   b. The book value of common equity plus net working capital
   c. The value of long-term debt plus the value of common equity
   d. The value of net working capital plus the appraised value of tangible assets

5. In estimating the amount of future economic benefit that might result from the exploitation of embryonic technology, we would consider which of the following:

   a. Its possible effect on product quality
   b. Its potential for enhancing product prices
   c. Its potential for reducing labor costs
   d. The cost of commercializing it

6. When the market price of a company's common stock drops because of market conditions, which class of assets is likely to suffer the largest proportionate reduction in market value?

   a. Monetary assets
   b. Intangible assets
   c. Tangible assets
   d. All classes suffer equally

7. An appraisal must include which of the following:

   a. The "as of date" of the value opinion
   b. The purpose of the appraisal
   c. The premise of value
   d. The appraiser's qualifications

8. The so-called "Relief from Royalty" calculation:

   a. Uses a royalty to calculate a surrogate for future economic benefit
   b. Is useful in licensing negotiations
   c. Is a form of the income approach
   d. Is often used to measure damages in infringement litigation

9. Generally, it is safe to assume that the amount shown on an audited balance sheet for Current Assets is equivalent to their market value because:

   a. Auditors tend to be conservative
   b. Amounts shown on financial statements are rarely inaccurate
   c. These assets are typically turned over in less than a year
   d. It is likely that the amount shown will soon be realized in cash

10. If we are engaged to value computer software developed by a business for sale as a product, we are most likely to base our appraisal on:

    a. The trended original cost of the software
    b. The present value of the economic benefit of selling the software
    c. The software's cost of replacement less physical, functional and economic obsolescence
    d. The current cost that would be incurred to develop the software.

10 True / False Questions. Circle the "T" or "F" after each question.

1. A trademark only becomes valuable through being associated with a product or service in the marketplace. **T F**

2. FPLC's net working capital at December 31, 2007 was $5,216 million. **T F**

3. The maximum market value of a mainframe computer is the cost that would be incurred to replace it. **T F**

4. The market value of a company's common stock can be determined by observing the balance sheet amount shown for "Shareholder's Equity" **T F**

5. Generally speaking, the risk of an investing in the common stock of a small company is higher than an investment in a large company's common stock **T F**

6. A commercial bank is a likely source of funds for the development of a new computer software product . **T F**

7. An essential element in the income approach for the valuation of IP is an estimation of its remaining economic life. **T F**

8. The acronym "IFRS" refers to new international accounting standards. **T F**

9. Some tangible assets are more risky to own than others. **T F**

10. The interest on a certificate of deposit is both a cost of capital to the issuer and a return on investment to the individual purchasing it **T F**

Short Answer Questions. Write your answer in the space provided. Since space is limited, plan your answer before you write.

1. You have an assignment to quantify the amount of damages suffered by a company due to the theft of essential proprietary technology, or trade secrets. What damages formula would you use to carry out this assignment?

2. You are part of a team appraising the acetic acid technology of Macke & Co. The team has developed its conclusion of value based on a DCF calculation. You receive a message from your client that environmental permits for the pilot plant have been delayed and that construction cannot begin for 12 months. Would this new information cause you to reconsider your value conclusion? Why?

3. Might the new information described in Question 2 cause you to make changes in your DCF calculations? If so, how might those changes affect your conclusion of value?

4. You are advising a client about an appropriate royalty rate she should use to license out an innovative bio-medical technology. Your client suggests that the royalty rate should be 5% because that would yield a good return on the capital she invested to develop the technology. Do you agree with your client on this point? State the reasons for your position.

5. You have been given the task of appraising process technology that is under development by your client. You have completed an income approach analysis and have a preliminary value conclusion. You telephone your client to set up a meeting to discuss your conclusion and learn that the pilot plant that was under construction when you visited the plant has been completed and the operating results were successful. Which of your discounted cash flow inputs might change as a result of this new information?

6. If your answer to Question 5. names some DCF inputs that would change, how would those changes affect your preliminary income approach conclusion?

7. You have been retained by FPLC, Inc to appraise its trademarks. The client tells you that FPLC has been in existence for 85 years and that its products are "number one" in market share. He states that the trademarks have a market value of "at least $30 billion". Do you agree? Give the reason for your answer.

8. In the FPLC trademark valuation referred to in Question 7, how would you make use of the Goodwill amount of $4,560 million shown on the FPLC balance sheet for December 31, 2008?

FPLC, Inc
Income Statement
($millions)

Years ended December 31,	2008	2007
Net Sales	$27,300	$28,450
Cost of Products Sold	18,200	18,700
Gross Margin	9,100	9,750
Marketing, Research, Admin. Expenses	6,150	6,550
Operating Income	2,950	3,200
Interest Expense	410	460
Other Income, net	32	40
Earnings before Income Taxes	2,572	2,780
Income Taxes	1,029	1,112
Net Income	$1,543	$1,668
Average Common Shares Outstanding (mill)	321.3	321.3
December 31 price ($ per share)	$ 42.50	$ 71.00

FPLC, Inc
Balance Sheets
($millions)

Years ended December 31,	2008	2007
ASSETS		
Current Assets		
Cash	$ 1,110	$ 1,230
Investments	38	56
Accounts Receivable	2,090	2,340
Inventories		
Materials and Supplies	800	900
Work in Process	180	200
Finished Goods	1,560	1,890
Deferred Income Taxes	460	640
Prepaid Expenses	300	800
Total Current Assets	6,538	8,056
Property, Plant, and Equipment		
Buildings	1,700	1,700
Machinery and Equipment	12,050	11,200
Land	800	800
	14,550	13,700
Less Accumulated Depreciation	4,400	4,100
Total Property, Plant, and Equipment	10,150	9,600
Goodwill and Other Intangible Assets		
Goodwill	4,560	4,560
Less Accumulated Amortization	875	740
Total Goodwill and Other Intangible Assets	3,685	3,820
Total Assets	$ 20,373	$ 21,476
LIABILITIES and SHAREHOLDERS' EQUITY		
Current Liabilities		
Accounts Payable	2,160	2,390
Accrued Liabilities	1,826	1,785
Taxes Payable	780	1,100
Debt due within one year	450	700
Total Current Liabilities	5,216	5,975
Long-Term Debt	6,700	7,299
Total Liabilities	11,916	13,274
Shareholders' Equity		
Common Stock	450	450
Paid-in Capital	186	186
Retained Earnings	7,820	7,565
Total Shareholders' Equity	8,457	8,202
Total Liabilities and Shareholders' Equity	$ 20,373	$ 21,476