

**Valuation of Intellectual Property  
IPSI – 2002**

**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. 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
15 true / false questions	( 2 points each)	30 points
3 short answer questions	(10 points each)	<u>30</u> points
<b>Total Points</b>		<b>100</b>

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

Note the financial statements attached.

**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. Financial statements are useful in valuation because they:
  - a. Are audited by a Certified Public Accountant
  - b. Contain financial results of operations
  - c. Are a source of information
  - d. Are required by law
  
2. If company management decides that an asset is "impaired," it must:
  - a. Sell the asset in an orderly liquidation
  - b. Reduce the asset's value on its balance sheet
  - c. Remove the asset from its balance sheet
  - d. Transfer the asset to another company
  
3. If the Plaintiff in a patent infringement case is unable to quantify profits lost due to the infringement, it may offer testimony concerning:
  - a. The deterioration in value of its business
  - b. The cost to repair the damage done by the infringer
  - c. A reasonable royalty that the infringer should have paid
  - d. The number of units of the infringing products sold by the infringer
  
4. A valuation report must state:
  - a. The valuation date
  - b. The valuation purpose
  - c. The premise of value
  - d. The valuation methods relied upon
  
5. Investors seek an investment:
  - a. That is inexpensive to acquire
  - b. That will provide a return of the investment
  - c. That will provide a return on the investment
  - d. That has little or no risk
  
6. The cost approach valuation method is often used for:
  - a. Trademarks and tradenames
  - b. Proprietary technology
  - c. Computer software used within a company
  - d. A favorable supply contract

7. Monetary assets can be defined as:
- Current assets less current liabilities
  - Net working capital
  - The amount of cash and marketable securities on the balance sheet
  - The investments a company has made in other companies
8. In international taxation, the primary standard to determine an appropriate transfer price is:
- The economic life of the intellectual property involved
  - What others would pay in an arm's-length transaction
  - The location of the parties involved
  - The type of property or service that was transferred
9. You and a colleague are working on an appraisal of some technology. You agree on all of the inputs to a DCF calculation, except that you feel it will require more investment to commercialize the technology. Your value opinion would therefore be:
- Lower than that of your colleague
  - Higher than that of your colleague
  - The same as your colleague
  - Indeterminate, based on this information
10. You are valuing patented technology using an income approach. You have set up your DCF spreadsheet and have calculated a present value. You are then made aware of some information that causes you to conclude that the exploitation of this patented technology will be more risky than you originally thought. What is the likely outcome of this change?
- You will reduce the discount rate and the value will be lower
  - You will increase the discount rate and the value will be lower
  - You will increase the discount rate and the value will be higher
  - You will reduce the discount rate and the value will be higher

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

1. Intellectual property assets have no value when a company is in bankruptcy. T F
2. The debt on a company's balance sheet, added together with the book value of its common equity equals the market value of the company. T F
3. As a general rule, intangible assets are less risky to invest in than are tangible assets. T F
4. Assets that are versatile would likely bring more than highly specialized assets in an auction. T F
5. The value of FPLC, Inc. tangible assets as of December 31, 2001 was \$5.430 billion. T F
6. If you have a well thought out business plan, a bank would likely be willing to loan money to start up an e-commerce business. T F
7. Financial statements are strictly factual and do not contain forecasts or estimates. T F
8. It has been said that "earnings are value." Is this somewhat imprecise statement essentially true? T F
9. When we state that, for a given year, a company's net income is 5 percent of its sales revenue, this is a horizontal financial analysis. T F
10. Cost of replacement refers to the cost of creating a replica of the property appraised. T F
11. Market value of property is equal to the present value of the economic benefits to be derived from its ownership. T F
12. Trademarks are often said to be "the embodiment of goodwill." The FPLC, Inc. 2001 balance sheet shows goodwill in the amount of \$2.382 billion. This is therefore the value of the FPLC trademarks. T F
13. The attached financial statements indicate that the FPLC, Inc. earnings per share in 2001 was \$3.38. T F
14. The attached financial statements indicate that FPLC, Inc. net working capital at 12/31/01 was \$751 million. T F
15. The economic considerations that control a licensing transaction are usually dependent upon the profitability of the licensee's business. T F



3. A client wishes to transfer its trademark to a holding company and you have been asked to provide an opinion of its market value. Your client has advised you that it has spent an average of \$3 million annually on advertising over the past 10 years. Your client also advises that its products sell at a price higher than other nearly identical products in the marketplace. Which of these two facts is likely to be more useful to you in your analysis, and why?

**FPLC, Inc.**  
**Income Statement**  
**(\$millions)**

	Years ended December 31,	<u>2001</u>	<u>2000</u>
Net Sales		\$16,468	\$14,362
Cost of Products Sold		<u>10,532</u>	<u>9,756</u>
	Gross Margin	5,936	4,606
Marketing, Research, Admin. Expenses		<u>3,678</u>	<u>2,988</u>
	Operating Income	2,258	1,618
Interest Expense		490	183
Other Income, net		<u>51</u>	<u>145</u>
	Earnings before Income Taxes	1,819	1,580
Income Taxes		<u>728</u>	<u>632</u>
	Net Earnings	\$1,091	\$948
Average Common Shares Outstanding (mill)		322.7	322.7
December 31 price (\$ per share)		\$ 56.75	\$ 52.25

FPLC-IPSI-Student

**FPLC, Inc.**  
**Consolidated Balance Sheets**  
**(\$millions)**

	Years ended December 31,	<u>2001</u>	<u>2000</u>
<b>ASSETS</b>			
<b>Current Assets</b>			
Cash		\$ 453	\$ 691
Investments		49	149
Accounts Receivable		1,457	947
Inventories			
Materials and Supplies		560	418
Work in Process		87	70
Finished Goods		890	555
Deferred Income Taxes		221	199
Prepaid Expenses		580	573
	Total Current Assets	<u>4,297</u>	<u>3,602</u>
<b>Property, Plant, and Equipment</b>			
Buildings		1,356	1,123
Machinery and Equipment		6,112	4,725
Land		378	190
		<u>7,846</u>	<u>6,037</u>
Less Accumulated Depreciation		2,416	2,331
	Total Property, Plant, and Equipment	<u>5,430</u>	<u>3,706</u>
<b>Goodwill and Other Intangible Assets</b>			
Goodwill		2,382	1,392
Less Accumulated Amortization		350	330
	Total Goodwill and Other Intangible Assets	<u>2,032</u>	<u>1,062</u>
	<b>Total Assets</b>	<u><u>\$ 11,758</u></u>	<u><u>\$ 8,370</u></u>
<b>LIABILITIES and SHAREHOLDERS' EQUITY</b>			
<b>Current Liabilities</b>			
Accounts Payable		894	745
Accrued Liabilities		1,780	1,555
Taxes Payable		315	164
Debt due within one year		557	372
	Total Current Liabilities	<u>3,546</u>	<u>2,836</u>
	<b>Long-Term Debt</b>	<u>3,999</u>	<u>1,557</u>
	<b>Total Liabilities</b>	<u>7,545</u>	<u>4,393</u>
<b>Shareholders' Equity</b>			
Common Stock		450	457
Paid-in Capital		186	98
Retained Earnings		3,577	3,422
	Total Shareholders' Equity	<u>4,213</u>	<u>3,977</u>
	<b>Total Liabilities and Shareholders' Equity</b>	<u><u>\$ 11,758</u></u>	<u><u>\$ 8,370</u></u>