

FINAL EXAMINATION (REGULAR)
Winter 2015

Name: _____ ID: _____

Duration: 3 hours

Instructions (very important):

1. This examination paper consists of **12 pages including this page**. Please make sure your copy has all pages before commencing to write.
2. Make sure that your FULL name (last name first), Student ID and Section Letter are on the three documents: computer input sheet, answer booklet and examination paper.
3. You must answer the multiple choice questions by using the **computer input sheet**; darken the letter you choose **in pencil** on the computer input sheet. Write all your answers to the other questions in the **examination answer booklet**. You may answer the questions in any order you prefer. **Only the answers on the computer input sheet and in the examination booklet will be graded.**
4. Read the questions carefully and budget your time wisely.
5. **Show all calculations on the examination booklet**, and omit narratives for journal entries. Using abbreviated account names, headings, subheadings, totals and subtotals is not recommended, and it may be subject to mark deduction.
6. This is a closed book examination. However, a silent hand-held (not graphical or programmable) calculator and one standard language (not electronic) dictionary are permitted.
7. **Invigilators will not answer questions.** If you think there is an **error** in the question, ask your instructor when he/she visits the exam room.
8. Return the exam along with the computer input sheet and answer booklet(s) when you have finished.

Question	Topic	Total Marks
1	Multiple Choice	18
2	Financial Statements	22
3	Liabilities	21
4	Long-Lived Assets	14
5	Shareholders' Equity	11
6	Statement of Cash Flows	14
	Total	100

Question 1: Multiple Choice

(18 marks; 30 minutes)

For each of the following multiple choice question, choose the letter that corresponds to the **best** answer, and **show your answer on the computer input sheet**. Each correct answer is worth 1.5 marks.

1. Kate's Fashions Ltd. produces and sells high fashion merchandise. For the year ended March 31, 2015, the company reported \$85,000 cash provided by operating activities, \$18,000 by investing activities, and \$49,000 by financing activities. Kate's Fashions paid \$22,000 in dividends and spent \$35,000 for new equipment. Its free cash flow for 2015 was
 - a. \$95,000
 - b. \$63,000
 - c. \$50,000
 - d. \$46,000
 - e. \$28,000
2. Which of the following events decreases shareholders' equity?
 - a. Payment of a previously declared cash dividend.
 - b. Declaration of a 5-percent stock dividend.
 - c. Declaration of a cash dividend for preferred shares.
 - d. Declaration of a 2-for-1 stock split.
 - e. All of the above.
3. Cash receipts from customers are greater than sales revenues when there is a(an)
 - a. Increase in trade receivables.
 - b. Decrease in trade receivables.
 - c. Increase in cost of sales.
 - d. Decrease in cost of sales.
 - e. Decrease on both accounts.
4. A company recorded net purchases of \$20.3 billion for 20B. In 20A, ending trade payables was \$1.2 billion and in 20B, it was \$1.6 billion. How much cash was paid to suppliers in 20B?
 - a. \$18.7 billion
 - b. \$19.9 billion
 - c. \$20.7 billion
 - d. \$21.9 billion
5. A rising balance in the inventory account and a falling inventory turnover ratio implies that the inventory build-up is occurring because:
 - a. Goods are not selling as fast as anticipated.
 - b. The company is expecting to sell more goods in the future.
 - c. Goods are selling, but it is taking longer to collect from customers.
 - d. Goods cannot be shipped fast enough.
6. Which of the following is true?
 - a. Factory overhead consists of manufacturing costs other than direct materials and direct labour.
 - b. Net realizable value is the expected sales price plus selling costs.
 - c. FIFO Reserve is a contra sales account for the excess of FIFO over weighted-average inventory.
 - d. Purchases discounts increase sales revenue to arrive at net sales.
7. During one pay period, your company distributes \$130,500 to employees as net pay. The income tax withholdings were \$19,000 and the Canada Pension Plan withholdings were \$5,000. The total wages expense to the company, which includes CPP matching, during this period was:
 - a. \$149,500.
 - b. \$130,500
 - c. \$ 154,500
 - d. \$159,500

8. Richmond Company had the following information taken from its 20A adjusted trial balance: Sales, \$200,000; Sales Discounts, \$4,000; Beginning Inventory, \$10,000; and Purchases, \$140,000. A physical count of the merchandise on hand at the end of the year showed \$20,000. Compute the gross margin (gross profit) that would appear in the statement of earnings.
- a. \$62,000 b. \$66,000 c. \$70,000 d. \$74,000
9. When there is a present obligation that probably requires payment and the amount of the liability can be estimated reliably, the company should:
- a. Include a description of the contingent liability in the notes to the financial statements.
b. Record the estimated amount of the liability times the probability of its occurrence.
c. Record the liability and the estimated amount of the loss on the statement of financial position.
d. Omit the information about the contingent liability from its financial statements and notes.
10. When the effective interest method of amortization is used, what happens to the total amount of discount or premium amortized as a bond moves toward maturity?
- a. It decreases each period.
b. It increases each period for bonds sold at a discount but decreases for bonds sold at a premium.
c. It increases each period.
d. It decreases each period for bonds sold a discount but increases for bonds sold at a premium.
11. One difference between the double-declining-balance method and the straight-line method is that the double-declining-balance method:
- a. Causes the carrying amount to drop below residual value.
b. Does not consider the useful life of the asset in the calculation of depreciation.
c. Cannot be used for tax purposes.
d. Uses carrying amount instead of depreciable cost in the calculation of depreciation.
12. Johnson Company acquires land and building for \$4,000,000 including all fees related to acquisition. The land is appraised at \$2,700,000 and the building at \$2,100,000. The building is then renovated at a cost of \$750,000. What amount is capitalized to the building account?
- a. \$2,078,125 b. \$2,500,000 c. \$2,375,000 d. \$4,000,000

Question 2 Financial Statements:

(22 marks; 40 minutes)

Performance Sports Group Ltd. (PSG) is a leading developer and manufacturer of ice hockey, roller hockey, and lacrosse equipment as well as related apparel. Its consolidated statements of financial position, consolidated statements of income and consolidated statement of cash flow for 2014 appear on pages 9, 10 and 11 of the examination paper.

PART A

You are working as a consultant and it has come to your attention that a friend of yours has recently inherited a large sum of money and is looking for a reasonable investment. She is thinking of investing in PSG, so you took it upon yourself to further look into the company and its investment potential.

1. Calculate the following ratios for fiscal year ended May 31, 2014. Round all your calculations to two decimal points. **(9 marks)**
- a. *Quality of Earnings* c. *Return on Assets* e. *Cash Coverage*
b. *Times Interest Earned* d. *Fixed Asset Turnover* f. *Debt-to-Equity*

2. Comment on the company's capital structure over the two-year period. Be specific in your answer. **(2 marks)**.
3. Based on all the evidence you gathered make a recommendation on whether PSG represents a good investment. Be specific in your answer. **(2 marks)**.

PART B

1. Performance Sports Group's Inventories included the following:

NOTE 12 - Inventories

	May 31, 2014	May 31, 2013
Raw materials	\$ 4,545	\$ 3,101
Work in process	222	136
Finished goods	152,662	106,510
Total inventories	\$157,429	\$109,747

During the year ended May 31, 2014, the Company recorded in cost of goods sold \$543 of write-down of inventory as a result of net realizable value being lower than cost.

Required:

- a. Explain (in general terms) each of the inventory items listed in the NOTE 12 (above). **(3 marks)**
 - b. Assume that the write-down relates to the cost of specific items of raw materials. Prepare the journal entry to record the write-down of inventory costs. PSG uses a perpetual inventory system. **(1 mark)**
2. During the fiscal period 2014 PSG acquired Easton Baseball/Softball.

NOTE 5 - Business Combination

The following table presents the allocation of purchase price related to the acquisition of Easton Baseball/Softball, on the date of acquisition.

Trade receivables	\$ 70,916
Inventory	37,610
Property Plant and Equipment	2,814
Intangible assets	206,837
Other assets	786
Current liabilities	(24,802)

The total consideration paid to Easton Baseball/Softball at closing was \$352,389 in cash.

Required:

- a. Compute the amount of goodwill arising from the purchase and prepare the journal entry to record the transaction. **(5 marks)**

Question 3: Liabilities**(21 marks; 35 minutes)****PART A**

ACME Corporation issued a \$800,000, 6 percent, bonds on August 1, 2014. Interest is to be paid annually on the anniversary of the bond issuance date (August 1). The market rate is 7 percent and the bond matures in 8 years. The fiscal year end of the company is November 30. ACME uses the effective interest method, in accordance with IFRS requirements

Required: *(Round all numbers to the nearest dollar)*

1. Calculate the cash proceeds from the issuance of the bonds on August 1, 2014. (Present Value tables are on page 12 of the examination paper) **(2 marks)**
2. Prepare the journal entries on November 30, 2014 and on August 1, 2015. If no journal entry is required please write “No Entry” and explain the reason why. **(8 marks)**
3. Assume that the company redeems 40% of the original bonds at 107 on August 1, 2015, immediately after the payment of interest to bondholders. Compute and show the amounts that ACME should report on the following statements as at August 1 (immediately after the redemption) **(7 marks)**
 - a. Statement of Financial Position *(show how the remaining bonds are presented)*
 - b. Statement of Earnings *(compute and show in the proper section the eventual gain or loss on redemption)*
 - c. Statement of Cash Flows *(compute and show in the proper section the cash used to redeem the bonds)*

PART B

All Leather Inc. is one of Canada’s leading designers, manufacturers, and retailers of quality leather for both women and men. The company reported the following items in its statement of financial position dated June 30, 2014, and related note disclosures (in thousands of Canadian dollars):

	June 30, 2014	June 30, 2013
<i>Current Liabilities</i>		
Trade Payables and Accruals	\$10,161	\$ 11,024
Deferred Revenue	1,463	1,489
Sales Returns Provision	124	47
Income Tax Payable	-	278

Note 10. Sales Return Provision:

The provision for sales returns primarily relates to customer returns of unworn and undamaged purchases for a full refund within the time period provided by the company return policy, which is generally 14 days after the purchase date. Since the time period of the provision is of relatively short duration, all of the provision is classified as current. The following transactions occurred during the years ended June 30, 2013, and June 30, 2014, with respect to the sales return provision:

	June 30, 2014	June 30, 2013
Beginning of the period	\$ 47	-
Addition	1,799	1,687
Utilization	(1,722)	(1,640)
End of the period	\$ 124	\$ 47

Required

1. Assume that the company received \$17,365 from customers in advance of delivering the products they ordered. Determine the amount of deferred revenue that the company earned during fiscal year ended June 30, 2014. **(2 marks)**
2. Prepare the journal entries to record the transactions that affected the provision for sales returns account during the fiscal year ended June 30, 2014. **(2 marks)**

Question 4 Long-Term Assets

(14 marks; 25 minutes)

The intangible assets reported by Gianni Corporation at June 30, 2014 follow:

Copyright, #1	\$ 48,000
Less: Accumulated amortization	<u>24,000</u>
Copyright #1, <i>net</i>	24,000
Trademark	54,000
Goodwill	<u>125,000</u>
Total	<u>\$203,000</u>

Copyright #1 was acquired on January 1, 2012, and has a useful life of four years. The company amortizes any copyright using straight-line method. The trademark was acquired on January 1, 2010, and is expected to have an indefinite life. The company has a December 31 year-end.

The following cash transactions may have affected intangible assets and goodwill during 2014:

- | | |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| July 1 | Developed a new software, incurring \$210,000 in research and \$50,000 in development costs. The development phase ended on July 1. The product is expected to have a useful life of 20 years with double-declining-balance method of amortization. The software is unlikely to have any salvage value after its useful life. |
| July 5 | Paid \$7,000 in legal costs to successfully defend the trademark against infringement by another company. |
| Sep 1 | Paid \$60,000 to a popular hockey player to appear in commercials advertising the company's products. The commercials will air in early September. |
| Oct 1 | Acquired another copyright (Copyright #2) for \$180,000. The new copyright has a useful life of three years. |
| Dec 31 | Determined the recoverable amount of the trademark and goodwill to be \$65,000 and \$90,000, respectively. There was no indication that any other assets were impaired. |

Required

1. Prepare journal entries to record the transactions in 2014. **(7 marks)**
2. Show how the intangible assets and goodwill should be presented on the statement of financial position as at December 31, 2014. **(7 marks)**

Question 5 *Shareholders' Equity***(11 marks; 23 minutes)**

In April 2017, two years into the future, you have just started working as a co-op student for STS Corporation (a publicly traded firm). Thankfully, you paid attention in class.

You glance at the following excerpt from the shareholders' equity section of STS Corporation in the 2016 Annual Report:

	2016	2015
Preferred shares, \$3, cumulative, 10,000 shares authorized, 9,000 shares issued	\$900,000	900,000
Common shares, 500,000 shares authorized, 400,000 shares issued	2,000,000	2,000,000

Just as you decide to learn more by reading the notes to the financial statements, your boss walks in. He says to you:

“The board of directors met yesterday, April 9, and decided to distribute dividends to shareholders”. I was also instructed to tell you that dividends were not declared on the preferred shares in 2015 and are in arrears. Does that mean anything to you? It doesn't to me. Then again, I never took accounting.”

He passes you a piece of scrap paper on which he had made some notes. “Maybe you need this information too, I don't know.” You roll your eyes, and get to work.

On the paper are notes indicating that at the meeting (on April 9), the board of directors decided to distribute the entire 2016 net earnings (\$ 150,400) to shareholders, of record on April 12, 2017 and payable on May 3, 2017.

Required:

1. Prepare journal entries to record the transactions that occurred on the following dates: April 9, April 12 and May 3, 2017. If no entry is needed write “No entry required.” **(6 marks)**
2. Calculate the earnings per share for the company at year-end December 31, 2016. **(1 mark)**
3. **For this requirement only**, assume that the company has only common shares outstanding and that instead of declaring a cash dividend on April 9, the company had declared a 1% stock dividend on common shares to be issued on May 3, to shareholders of record on April 12. The share prices were \$15, \$13.5 and \$14 on April 9, April 12 and May 3, respectively. Prepare the journal entries on April 9 and May 3. **(4 mark)**

Question 6 *Statement of Cash Flows***(14 marks; 27 minutes)**

Organic Developments Ltd. (ODL) is an importer of organic produce from British Columbia. Comparative statements of financial position of ODL, its statement of earnings and additional information for the year ending October 31, 2014 follow:

Additional information

1. During the year, the company borrowed \$14,000 by increasing its bank loan payable.
2. A piece of old equipment was sold for cash. The equipment originally cost \$134,000 and had a net carrying amount of \$14,000 at the time of sale.
3. In June, ODL acquired land with a value of \$120,000 by issuing common shares with an equivalent value.

4. Account payable relates only to transactions with suppliers of merchandise inventory.

Organic Developments LTD.		
Statement of Financial Position		
As at October 31		
Assets	2014	2013
Cash	\$48,000	\$36,000
Accounts receivable	58,000	68,000
Inventory	180,000	160,000
Equipment	620,000	540,000
Accumulated depreciation	<u>(300,000)</u>	<u>(360,000)</u>
Equipment, <i>net</i>	320,000	180,000
Land	120,000	-
Liabilities and Shareholders' Equity		
Accounts payable	\$81,000	\$38,000
Dividends payable	30,000	36,000
Interest payable	1,000	2,000
Bank loan payable	74,000	120,000
Common shares	300,000	150,000
Retained earnings	240,000	98,000

Organic Developments LTD.		
Statement of Earnings		
For the year ended October 31, 2014		
<i>Revenues</i>		
Sale revenue		\$1,040,000
<i>Expenses</i>		
Cost of Sales	520,000	
Wages expense	100,000	
Depreciation expense	60,000	
Loss on sale of equipment	8,000	
Interest expense	3,500	
Income tax expense	<u>69,700</u>	
Total expenses		<u>761,200</u>
<i>Net earnings</i>		278,800

Required:

- 1) Prepare, in a good form, the **operating** and **investing** sections only of ODL' Statement of Cash Flow for the year ended October 31, 2014. Use indirect method to prepare the operating section. **(7 marks)**
- 2) How much cash was raised from issuing shares? **(1 mark)**
- 3) How much cash was paid as dividend to shareholders? **(2 marks)**
- 4) How much cash was paid to suppliers of merchandise inventory? **(2 marks)**
- 5) Was the cash flow generated by the company's operating activities during the year larger, equal to, or smaller than the net earnings of 2014? Should these two amounts be the same? Explain. **(2 marks)**

PERFORMANCE SPORTS GROUP LTD.
(formerly Bauer Performance Sports Ltd.)
CONSOLIDATED STATEMENTS OF FINANCIAL POSITION
(Expressed in thousands of U.S. dollars)

	<u>As of</u> <u>May 31, 2014</u>	<u>As of</u> <u>May 31, 2013</u>
ASSETS		
Cash	\$ 6,871	\$ 4,467
Trade and other receivables (Note 11)	205,649	113,682
Inventories (Note 12)	157,429	109,747
Income taxes recoverable	5,580	1,966
Foreign currency forward contracts (Note 23)	3,193	4,513
Prepaid expenses and other assets	<u>6,062</u>	<u>3,084</u>
Total current assets	384,784	237,459
Property, plant and equipment (Note 13)	12,482	10,509
Goodwill and intangible assets (Note 14)	410,050	152,644
Foreign currency forward contracts (Note 23)	—	1,119
Other non-current assets	475	721
Deferred income taxes (Note 15)	<u>12,030</u>	<u>4,985</u>
TOTAL ASSETS	<u>\$819,821</u>	<u>\$407,437</u>
LIABILITIES		
Debt (Note 16)	\$ 91,518	\$ 10,774
Trade and other payables	42,116	22,548
Accrued liabilities (Note 17)	38,593	25,672
Provisions (Note 18)	5,564	2,041
Income taxes payable	3,788	989
Retirement benefit obligations (Note 19)	<u>358</u>	<u>358</u>
Total current liabilities	181,937	62,382
Debt (Note 16)	431,573	160,913
Provisions (Note 18)	257	383
Retirement benefit obligations (Note 19)	5,506	5,522
Other non-current liabilities	115	879
Deferred income taxes (Note 15)	<u>2,606</u>	<u>918</u>
TOTAL LIABILITIES	<u>621,994</u>	<u>230,997</u>
EQUITY		
Share capital (Note 20)	145,970	141,397
Contributed surplus (Note 21)	13,426	9,562
Retained earnings	47,124	27,037
Accumulated other comprehensive loss	<u>(8,693)</u>	<u>(1,556)</u>
TOTAL EQUITY	<u>197,827</u>	<u>176,440</u>
TOTAL LIABILITIES & EQUITY	<u>\$819,821</u>	<u>\$407,437</u>
Commitments and Contingencies (Note 24)		
Subsequent Events (Note 28)		

On behalf of the Board:

(Signed) BERNARD McDONELL,
Director

(Signed) ROBERT NICHOLSON,
Director

PERFORMANCE SPORTS GROUP LTD.
(formerly Bauer Performance Sports Ltd.)
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(Expressed in thousands of U.S. dollars, except per share amounts)

	For the years ended May 31,	
	2014	2013
Revenues	\$446,179	\$399,593
Cost of goods sold (Notes 13 and 14)	<u>291,843</u>	<u>252,419</u>
Gross profit	154,336	147,174
Selling, general and administrative expenses (Notes 9, 13 and 14)	105,212	90,435
Research and development expenses	<u>18,454</u>	<u>16,056</u>
Income before finance costs, finance income, gain on bargain purchase, other expenses and income tax expense	30,670	40,683
Finance costs (Note 10)	13,983	8,566
Finance income (Note 10)	(11,177)	(2,000)
Gain on bargain purchase (Note 5)	—	(1,190)
Other expenses	<u>353</u>	<u>158</u>
Income before income tax expense	27,511	35,149
Income tax expense (Note 15)	<u>7,424</u>	<u>9,817</u>
Net income	\$ 20,087	\$ 25,332

PERFORMANCE SPORTS GROUP LTD.
(formerly Bauer Performance Sports Ltd.)
CONSOLIDATED STATEMENTS OF CASH FLOWS
(Expressed in thousands of U.S. dollars)

	For the years ended May 31,	
	2014	2013
OPERATING ACTIVITIES:		
Net income	\$ 20,087	\$ 25,332
Adjustments to net income:		
Share-based payment expense (Note 21)	4,318	3,611
Depreciation and amortization	10,439	7,757
Finance costs (Note 10)	13,983	8,566
Finance income (Note 10)	(11,177)	(2,000)
Income tax expense (Note 15)	7,424	9,817
Bad debt expense	1,470	117
Gain on bargain purchase (Note 5)	—	(1,190)
Loss on disposal of assets	200	45
Net changes in balances related to operations (excluding the effect of acquisitions):		
Trade and other receivables	(25,514)	(3,319)
Inventories	(13,371)	(17,674)
Prepaid expenses and other assets	(5,852)	1,135
Trade and other payables	7,126	(2,423)
Accrued and other liabilities	16,109	(3,992)
Cash from operating activities	25,242	25,782
Interest paid	(7,522)	(6,246)
Income taxes paid	(6,335)	(2,649)
Income tax refunds received	113	24
Net cash from operating activities	11,498	16,911
INVESTING ACTIVITIES:		
Acquisition of subsidiaries, net of cash acquired (Note 5)	(352,389)	(74,008)
Purchase of property, plant, equipment and intangible assets	(6,032)	(7,377)
Net cash used in investing activities	(358,421)	(81,385)
FINANCING ACTIVITIES:		
Proceeds from debt (Note 16)	450,000	30,000
Repayment of debt	(106,641)	(9,569)
Net movement in revolving debt	22,335	14,595
Debt issuance costs (Note 16)	(16,803)	(1,265)
Net proceeds from issuance of common shares (Note 20)	—	30,804
Proceeds from stock option exercises	2,101	—
Payment of taxes upon net stock option exercise	(1,293)	(694)
Net cash from financing activities	349,699	63,871
EFFECTS OF EXCHANGE RATE CHANGES ON CASH	(372)	(77)
INCREASE (DECREASE) IN CASH	2,404	(680)
BEGINNING CASH	4,467	5,147
ENDING CASH	\$ 6,871	\$ 4,467

Present Value Tables

TABLE A.1

Present Value of \$1, $p = 1/(1 + i)^n$

Periods	2%	2.5%	2.75%	3%	3.75%	4%	4.25%	5%
1	0.9804	0.9756	0.9732	0.9709	0.9639	0.9615	0.9592	0.9524
2	0.9612	0.9518	0.9472	0.9426	0.9290	0.9246	0.9201	0.9070
3	0.9423	0.9286	0.9218	0.9151	0.8954	0.8890	0.8826	0.8638
4	0.9238	0.9060	0.8972	0.8885	0.8631	0.8548	0.8466	0.8227
5	0.9057	0.8839	0.8732	0.8626	0.8319	0.8219	0.8121	0.7835
6	0.8880	0.8623	0.8498	0.8375	0.8018	0.7903	0.7790	0.7462
7	0.8706	0.8413	0.8270	0.8131	0.7728	0.7599	0.7473	0.7107
8	0.8535	0.8207	0.8049	0.7894	0.7449	0.7307	0.7168	0.6768
9	0.8368	0.8007	0.7834	0.7664	0.7180	0.7026	0.6876	0.6446
10	0.8203	0.7812	0.7624	0.7441	0.6920	0.6756	0.6595	0.6139
20	0.6730	0.6103	0.5813	0.5534	0.4789	0.4564	0.4350	0.3769
Periods	6%	7%	8%	9%	10%	11%	12%	13%
1	0.9434	0.9346	0.9259	0.9174	0.9091	0.9009	0.8929	0.8850
2	0.8900	0.8734	0.8573	0.8417	0.8264	0.8116	0.7972	0.7831
3	0.8396	0.8163	0.7938	0.7722	0.7513	0.7312	0.7118	0.6931
4	0.7921	0.7629	0.7350	0.7084	0.6830	0.6587	0.6355	0.6133
5	0.7473	0.7130	0.6806	0.6499	0.6209	0.5935	0.5674	0.5428
6	0.7050	0.6663	0.6302	0.5963	0.5645	0.5346	0.5066	0.4803
7	0.6651	0.6227	0.5835	0.5470	0.5132	0.4817	0.4523	0.4251
8	0.6274	0.5820	0.5403	0.5019	0.4665	0.4339	0.4039	0.3762
9	0.5919	0.5439	0.5002	0.4604	0.4241	0.3909	0.3606	0.3329
10	0.5584	0.5083	0.4632	0.4224	0.3855	0.3522	0.3220	0.2946
20	0.3118	0.2584	0.2145	0.1784	0.1486	0.1240	0.1037	0.0868

TABLE A.2

Present Value of Annuity of \$1, $P = [1 - 1/(1 + i)^n]/i$

Periods	2%	2.5%	2.75%	3%	3.75%	4%	4.25%	5%
1	0.9804	0.9756	0.9732	0.9709	0.9639	0.9615	0.9592	0.9524
2	1.9416	1.9274	1.9204	1.9135	1.8929	1.8861	1.8794	1.8594
3	2.8839	2.8560	2.8423	2.8286	2.7883	2.7751	2.7620	2.7232
4	3.8077	3.7620	3.7394	3.7171	3.6514	3.6299	3.6086	3.5460
5	4.7135	4.6458	4.6126	4.5797	4.4833	4.4518	4.4207	4.3295
6	5.6014	5.5081	5.4624	5.4172	5.2851	5.2421	5.1997	5.0757
7	6.4720	6.3494	6.2894	6.2303	6.0579	6.0021	5.9470	5.7864
8	7.3255	7.1701	7.0943	7.0197	6.8028	6.7327	6.6638	6.4632
9	8.1622	7.9709	7.8777	7.7861	7.5208	7.4353	7.3513	7.1078
10	8.9826	8.7521	8.6401	8.5302	8.2128	8.1109	8.0109	7.7217
20	16.3514	15.5892	15.2273	14.8775	13.8962	13.5903	13.2944	12.4622
Periods	6%	7%	8%	9%	10%	11%	12%	13%
1	0.9434	0.9346	0.9259	0.9174	0.9091	0.9009	0.8929	0.8850
2	1.8334	1.8080	1.7833	1.7591	1.7355	1.7125	1.6901	1.6681
3	2.6730	2.6243	2.5771	2.5313	2.4869	2.4437	2.4018	2.3612
4	3.4651	3.3872	3.3121	3.2397	3.1699	3.1024	3.0373	2.9745
5	4.2124	4.1002	3.9927	3.8897	3.7908	3.6959	3.6048	3.5172
6	4.9173	4.7665	4.6229	4.4859	4.3553	4.2305	4.1114	3.9975
7	5.5824	5.3893	5.2064	5.0330	4.8684	4.7122	4.5638	4.4226
8	6.2098	5.9713	5.7466	5.5348	5.3349	5.1461	4.9676	4.7988
9	6.8017	6.5152	6.2469	5.9952	5.7590	5.5370	5.3282	4.1317
10	7.3601	7.0236	6.7101	6.4177	6.1446	5.8892	5.6502	5.4262
20	11.4699	10.5940	9.8181	9.1285	8.5136	7.9633	7.4694	7.0248

