

ADM 2342
Mid Term Exam No. 1
Intermediate Financial Accounting 1
2018 Spring/Summer Semester
Solutions

NAME: _____ STUDENT #: _____

1. This examination comprises 5 questions over 15 pages. Page 13 is an extra page for rough work and any additional supporting calculations. The last two pages (pages 14 and 15) contain present value tables. Answer all questions directly in this booklet. The booklet is not to be removed from the examination room. You may separate the pages but ensure that you put them back together and staple them before handing in.
2. Limit your answer to the space provided. Blank sheets for rough work and supporting calculations are given at the end of each question. You must show, where appropriate, supporting calculations in order to get part marks.
3. This exam is out of 80 marks and is 2½ hours long. You should budget approximately 2 minutes per mark.
4. Please do **not** ask the invigilator or the professor any questions, as they will **not** be answered. State reasonable assumptions, if you feel they are necessary.
5. Students may use either pen or pencil in writing this exam. However, if a student elects to use pencil, after the exam has been marked and returned to the student, the exam cannot be re-submitted for review.
6. Language dictionaries (non-electronic) are allowed if the invigilator permits them. They must be shown to the invigilator before the start of the exam.
7. The use of electronic communication devices such as cell phones is strictly prohibited during the exam.
8. You **must** sign the Statement of Academic integrity on page 2 of this exam.

Question		Marks
1	Accounting Information Systems & Reporting Financial Performance	/22
2	Discontinued Operations	/8
3	Cash Flow Statement	/20
4	Canadian Conceptual Framework	/12
5	Revenue Recognition	/18
TOTAL		<u>/80</u>

Statement of Academic Integrity

The Telfer School of Management does not condone academic fraud, an act by a student that may result in a false academic evaluation of that student or of another student. Without limiting the generality of this definition, academic fraud occurs when a student commits any of the following offences: plagiarism or cheating of any kind, use of books, notes, mathematical tables, dictionaries or other study aid unless an explicit written note to the contrary appears on the exam, to have in his/her possession cameras, radios (radios with head sets), tape recorders, pagers, cell phones, or any other communication device which has not been previously authorized in writing.

Statement to be signed by the student:

I have read the text on academic integrity and I pledge not to have committed or attempted to commit academic fraud in this examination.

Signed: _____

Note: an examination copy or booklet without that signed statement will not be graded and will receive a final exam grade of zero.

Question No. 1 (22 marks)

Biscayne Company, a public company with a December 31 year-end, reported the following items in its unadjusted trial balance as at December 31, 2017. The accounts in the trial balance are listed in alphabetical order. It is a partial trial balance because it does not include all accounts. All accounts listed have normal debit and credit balances.

Administration Expense	\$235,700
Accounts Payable	76,800
Accounts Receivable	99,800
Allowance For Doubtful Accounts (credit)	2,000
Cash Dividends Declared	31,000
Delivery Expense	26,900
Gain On Sale Of Automobile	1,400
Insurance Expense	38,400
Interest Expense	27,100
Loan Receivable, 8%	75,000
Merchandise Inventory, January 1	89,400
Note Payable, 6%	500,000
Purchases	560,300
Salaries & Employee Benefits Expense	120,900
Sales Returns & Allowances	42,100
Sales Revenues	1,876,000
Selling Expenses	34,000
Supplies Expenses	45,900
Supplies Inventory	600
Retained Earnings, January 1	568,300
Unearned Revenue	32,000
Utilities Expenses	65,400

Other information:

- (a) The income tax rate is 30%. However, no tax has yet been recorded.
- (b) Ending balance of merchandise inventory on December 31, 2017 is \$76,500. The ending balance of the supplies inventory is \$1,200.
- (c) Insurance expense represents a payment made on May 1, 2017 under a 24-month policy that was debited to insurance expense.
- (d) Customers owe \$53,000 for goods delivered on December 31, 2017. This amount has not yet been recorded by Biscayne.
- (e) All sales are on account except those that represent unearned revenues.
- (f) The unearned revenue represents customer deposits that were received by Biscayne during the year. Of this amount, 60% is still unearned at the end of the year.
- (g) Bad debts expense is to be recognized at 1% of total sales revenues earned during the year.
- (h) Interest on the note payable is paid annually and was last paid and recorded on October 31, 2017.
- (i) The company owes \$3,200 in utilities expenses.
- (j) Interest on the loan receivable has not been recorded all year.

Required: (Narrative explanations are not required).

- (a) Prepare journal entries to reflect the required adjustments. (12 marks)
- (b) Prepare a Statement of Comprehensive Income in single-step format for Biscayne Company for the year ended December 31, 2017. (10 marks)

Question No. 1 (continued) (22 marks)

Answer:

Part (a):

(a) Inventory.....	76,500	
Cost of goods sold.....	573,200	
Purchases.....		560,300
Inventory		89,400
(b) Supplies inventory (\$1,200 - \$600).....	600	
Supplies expense		600
(c) Prepaid insurance (\$38,400 x 16/24).....	25,600	
Insurance expense.....		25,600
(d) Accounts receivable.....	53,000	
Sales Revenue.....		53,000
(e) Unearned revenue (\$32,000 x .4).....	12,800	
Sales Revenue.....		12,800
(f) Bad debt expense (\$1,876,000 + \$53,000 + 12,800) x 1%.....	19,418	
Allowance for doubtful accounts		19,418
(g) Interest expense (\$500,000 x 6% x 2/12)	5,000	
Interest payable.....		5,000
(h) Utilities expense	3,200	
Accrued accounts payable		3,200
(i) Interest receivable (\$75,000 x 8%)	6,000	
Interest revenue.....		6,000
(j) Income tax expense (NI x 30% = \$738,182 x 30%).....	221,455	
Income tax payable		221,455
NI = \$738,182 (see requirement 2) x 30%		

Part (b):

*Biscayne Company
Statement of Comprehensive Income
For Year Ended December 31, 2017*

Sales revenue (\$1,876,000 + \$53,000 + \$12,800)	\$1,941,800	
Less: Sales returns and allowances	(42,100)	
.....		\$1,899,700
Gain on sale of auto.....		1,400
Interest revenue.....		6,000
Total revenue		<u>1,907,100</u>
Expenses:		
Cost of goods sold.....	\$573,200	
Administration expenses	235,700	
Delivery expense	26,900	
Insurance expense (\$38,400 - \$25,600).....	12,800	
Salaries and benefits expense	120,900	
Selling expenses	34,000	
Supplies expense (\$45,900 - \$600)	45,300	
Utilities expense (\$65,400 + \$3,200).....	68,600	
Bad debts.....	19,418	
Interest expense (\$27,100 + \$5,000)	<u>32,100</u>	<u>1,168,918</u>
Income before income tax		738,182
Income tax expense		<u>221,455</u>
Net Income (Comprehensive Income).....		<u>\$ 516,727</u>

Question No. 2 (8 marks)

The Mactaquac Corporation is a public company that operates several stores throughout the province of New Brunswick (Saint John, Fredericton, and Moncton). At a meeting of the Board of Directors on August 15, 2016, management decided to restructure the company and subsequently made the decision to close down its Fredericton store. The company's income tax rate is 30%. In preparing its financial statements for the period ending December 31, 2016, the following information was made available (all amounts are pre-tax):

1. The Fredericton operation incurred a loss of \$188,400 for the year ended December 31, 2016. This included \$109,400 for the period from January 1 to August 15, 2016.
2. On December 31, 2016, the net assets of the Fredericton store had an estimated fair value of \$5,000,000 and a carrying value of \$5,200,000. Disposal costs, not included in these figures, were estimated to be \$200,000.
3. Management expects the Fredericton store to lose an additional \$350,000 before it is sold. The income tax rate

Required:

- (a) Assume the Fredericton store qualifies for reporting as a discontinued operation. Calculate the amount to be reported in the discontinued operations section of Mactaquac's 2016 Statement of Comprehensive Income. (4 marks)
- (b) On February 24, 2017, the Fredericton store was sold for \$6,200,000 million. The store lost an additional \$175,000 before it was sold and actual disposal costs were \$325,000 in total. Calculate the amount to be reported in the discontinued operations section of Mactaquac's 2017 Statement of Comprehensive Income. (4 marks)

Note: It is not necessary to prepare the Statement of Comprehensive Income. Both parts of this question simply ask you to calculate the amount that would be reported in the discontinued operations section of the Statement of Comprehensive Income.

Answer:

(a)

For the year ended December 31 2016

Loss from operations of discontinued operations	\$(188,400)
Reduction in carrying value of net assets to estimated fair value (\$5,200,000 – 5,000,000)	(200,000)
Estimated cost to sell	<u>(200,000)</u>
Estimated total pre-tax loss amount	(588,400)
Income tax recovery (at 30%)	<u>176,520</u>
Loss on discontinued operations to be reported, net of income tax	<u>\$(411,880)</u>

(b)

For the year ended December 31, 2017

Selling Price	\$6,200,000
Less: Fair market value of net assets	(5,000,000)
Less: Additional costs to sell (\$325,000 – 200,000)	(125,000)
Less; Additional loss from operations of discontinued operations	<u>(175,000)</u>
Estimated total pre-tax amount	900,000
Applicable income tax @ 30%	<u>(270,000)</u>
Gain on discontinued operations to be reported, net of income tax	<u>\$630,000</u>

Question No. 3 (20 marks)

The comparative Statement of Financial Position for the Valleyfield Corporation is presented below (shown in a condensed format):

**Valleyfield Corporation
Statement of Financial Position
As at December 31, 2017 and 2018**

	2018	2017
Assets		
Cash	\$ 600,000	\$ 400,000
Accounts Receivable	1,100,000	1,300,000
Inventory	400,000	600,000
Investment – at fair value through profit/loss	200,000	_____
Investment – bonds held at amortized cost	100,000	_____
Property, Plant & Equipment	4,200,000	3,400,000
Accumulated Depreciation	<u>(2,000,000)</u>	<u>(1,500,000)</u>
Total	<u>\$4,600,000</u>	<u>\$4,200,000</u>
Liabilities & Shareholders' Equity		
Accounts Payable	\$ 100,000	\$ 150,000
Bank Loans Payable	2,700,000	2,400,000
Bonds Payable	413,860	416,849
Preferred Shares	300,000	_____
Common Shares	300,000	400,000
Retained Earnings	<u>786,140</u>	<u>833,153</u>
Total	<u>\$4,600,000</u>	<u>\$4,200,000</u>

Additional information for 2018 is presented below:

- (a) Common shares were redeemed during the year at their book value.
- (b) The face value of the bonds payable is \$400,000. The bonds pay a coupon rate of 7% per annum. The effective interest rate of interest is 6% per annum.
- (c) The net income earned for the year was \$100,000.
- (d) During the year, there was a common stock dividend issued valued at \$20,000. Cash dividends were also paid.
- (e) Interest expense and income tax expense for the year were \$100,000 and \$50,000, respectively.
- (f) During the year, Valleyfield engaged in three transactions which affected the PP & E account. In the first transaction, Valleyfield borrowed \$500,000 from Brighthouse Banking and used the funds to purchase PP & E. In the second transaction, Valleyfield borrowed \$250,000 from Cummings Financial Services and used the proceeds to purchase additional PP & E. In the third transaction, Valleyfield purchased for cash more PP & E.
- (g) During the year Valleyfield sold old equipment with a net book value of \$150,000 (original cost, \$200,000) for \$180,000 cash.
- (h) During the year, Valleyfield managed to pay back a part of its total borrowings.
- (i) Valleyfield follows the policy of reporting cash flows from interest as an operating activity and cash flows from dividend payments as a financing activity.
- (j) The at fair value through profit/loss investment is considered to be a cash equivalent.

Question No. 3 (continued) (20 marks)

Required:

Prepare a properly formatted Cash Flow Statement for Valleyfield Corporation for the year ending December 31, 2018 using the indirect method. Show any necessary disclosures.

Answer:

Valleyfield Corporation Cash Flow Statement For The Year Ending December 31, 2018		
<u>Cash flow from operating activities</u>	Explanation	
Net income		\$100,000
Adjustments for:		
Depreciation expense	1	550,000
Amortization of bond premium	2	(2,989)
Gain on sale of equipment	4	<u>(30,000)</u>
		617,011
Decrease in accounts receivable		200,000
Decrease in accounts payable		(50,000)
Decrease in inventory		<u>200,000</u>
Net cash from operating activities		967,011
<u>Cash flow from investing activities</u>		
Sale of PPE assets	4	180,000
Purchases of PPE assets	5	(1,000,000)
Purchase of bond investment held at amortized cost		<u>(100,000)</u>
Cash used in investing activities		(920,000)
<u>Cash flow from financing activities</u>		
Bank loans (from Brighthouse and Cummings)		750,000
Bank loan repayment	6	(450,000)
Issued preferred shares		300,000
Cash dividends paid	3	(127,011)
Redemption of common shares	7	<u>(120,000)</u>
Cash from financing activities		<u>352,989</u>
Net increase in cash		400,000
Cash, January 1, 2014		<u>400,000</u>
Cash, December 31, 2014 (including CCE)	8	<u><u>\$800,000</u></u>

Mandatory disclosures:

- Income taxes paid \$50,000
- Interest paid \$102,989
- Valleyfield borrowed \$250,000 and used the proceeds to acquire additional PP&E
- A stock dividend valued at \$20,000 was issued during the period.

1. It is instructive to use a T-account to help determine the depreciation expense during the year:

	<u>Accumulated Depreciation</u>
Opening balance	1,500,000
AD on sale of equipment - from below	50,000
Solve for depreciation expense	<u>550,000</u>
Closing balance	<u>2,000,000</u>

Cost (given)	\$200,000
Solve for accumulated depreciation	<u>50,000</u>
Bet book value (given)	<u>\$150,000</u>

2. \$100,000 interest expense + \$2,989 decrease in the premium on bonds payable (\$416,849 – \$413,860) = \$102,989 interest paid.

Question No. 3 (continued) (20 marks)

3. Using a T-account

<u>Retained earnings</u>	
Opening balance	833,151
Net income	100,000
Stock dividend	20,000
Solve for cash dividends	<u>127,011</u>
Closing balance	<u>786,140</u>

4. \$150,000 net book value + \$30,000 gain on sale = \$180,000 sales price.

5. Using a T-account:

<u>Property, Plant, & Equipment</u>	
Opening balance	3,400,000
Cost of equipment sold	200,000
PP & E (from Brighthouse)	500,000
PP & E (From Cummings)	250,000
Other PP & E (for cash)	250,000
Closing balance	<u>4,200,000</u>

6. Using a T-account:

<u>Bank loans</u>	
Opening balance	2,400,000
Loan from Brighthouse	250,000
Loan from Cummings	500,000
Solve for repayment	<u>450,000</u>
Closing balance	<u>2,700,000</u>

7. Using a T-account:

<u>Common shares</u>	
Opening balance	400,000
Stock dividend	20,000
Solve for redemption	<u>120,000</u>
Closing balance	<u>300,000</u>

8. The closing cash balance includes cash and cash equivalents. The at fair value through profit or loss investment is a cash equivalent. Therefore, the closing cash balance is \$600,000 + \$200,000 = \$800,000.

Question No. 4 (12 marks)

Answer ALL THREE parts to this question.

PART ONE: (6 marks)

Required:

One of the fundamental qualitative characteristics of accounting information is representational faithfulness. Identify and describe the three characteristics that information must have in order to provide a faithful representation of economic reality.

Answer:

In order to achieve faithful representation, information must be complete, neutral and free from material error. Neutral information is free of bias and does not intentionally favour one set of stakeholders over another. Completeness means that all the information that is needed to faithfully represent economic reality must be included, and nothing important is omitted. The statements should be, as far as possible, free from material error. However, this does not mean that there is necessarily 100% accuracy at all times. This is basically impossible given the fact that accounting estimates are frequently necessary.

Question No. 4 (continued) (12 marks)

PART TWO: (3 marks)

Required:

The president of Connor Company, Cynthia Connor, feels that it is not necessary to classify assets and liabilities as current and non-current because she expects the company to operate only for another 10 years. What accounting assumption or principle is involved? Explain whether it is being followed correctly or has been violated.

Answer:

The assumption involved in this situation is called the going concern assumption. The going concern assumption has been violated. The elements on the statement of financial position should have been classified between current and non-current.

PART THREE: (3 marks)

Required:

The annual depreciation expense on a building owned by Halton Company was \$60,000. Because the building was increasing in value during the year, the controller decided not to record any depreciation expense for the current year. Comment on the appropriateness of the controller's decision and any impact his decision would have on the company's financial statements, applying the Canadian conceptual framework.

Answer:

Depreciation is an allocation of cost, not an attempt to value assets. As a consequence, even if the value of the building is increasing, the remaining costs related to this building should be matched with revenues on the income statement. As such, making no entry violates the matching principle. This error will affect the assets and shareholders' equity of the company. By failing to record depreciation expense in the year, assets and ending shareholders' equity (retained earnings) are both overstated.

Question No. 5 (18 marks)

Kameka Construction Company contracted to build an office building for \$3,200,000. Construction began in September 2016 and was scheduled to be completed by May 2018. Kameka is a private company and has elected to follow ASPE. The company’s year-end is December 31. Data related to the contract are summarized below:

	2016	2017	2018
Costs incurred during the year	\$ 540,000	\$1,800,000	\$ 760,000
Estimated additional costs to complete	2,460,000	780,000	0
Billings during the year	450,000	1,300,000	1,450,000
Cash collections during the year	400,000	1,100,000	1,640,000

The company has decided to the cost-to-cost method for measuring progress toward completion and is considering how its financial statements would look if it used the percentage of completion method versus the completed contract method.

Required:

- (a) Prepare Kameka’s Statement of Financial Position and Income Statement for each year of the contract assuming it follows the percentage of completion method.
- (a) Prepare Kameka’s Statement of Financial Position and Income Statement for each year of the contract assuming it follows the completed contract method.

Answer:

(a)

*Kameka Construction Limited
Statement of Financial Position*

	<u>2016</u>	<u>2017</u>	<u>2018</u>
<i>Current Assets</i>			
<i>Accounts Receivable</i>	\$ 50,000	\$250,000	60,000
<i>Construction-in-progress (CIP)</i>	\$576,000	\$2,400,000	0
<i>Billings on contract</i>	<u>(450,000)</u>	<u>(1,750,000)</u>	<u>0</u>
<i>CIP in excess of Billings on Contracts</i>	\$ 126,000	\$650,000	0

*Kameka Construction Limited
Income Statement*

	<u>2016</u>	<u>2017</u>	<u>2018</u>
<i>Revenues from construction contract</i>	\$576,000	\$1,824,000	\$ 800,000
<i>Construction expenses</i>	<u>540,000</u>	<u>1,800,000</u>	<u>760,000</u>
<i>Gross margin on construction contract</i>	\$ <u>36,000</u>	\$ <u>24,000</u>	\$ <u>40,000</u>
<i>Costs incurred to date</i>	\$ 540,000	\$2,340,000	\$3,100,000
<i>Estimated additional costs to complete</i>	<u>2,460,000</u>	<u>780,000</u>	<u>0</u>
<i>Percentage complete</i>	18% ¹	75% ²	100% ³
¹ 2016: (in thousands)	540/(540 + 2,460)		
² 2017: (in thousands)	2,340/(2,340 + 780)		
³ 2018: (in thousands)	3,100/3,100		

Note: The use of alternative terminology, such as “Contract Asset” and “Contract Liability” (instead of Construction-in Process and Billings on Contract) is permissible as long as such use is consistent throughout the solution.

Question No. 5 (continued) (18 marks)

(b)

*Kameka Construction Limited
Statement of Financial Position*

	<u>2016</u>	<u>2017</u>	<u>2018</u>
<i>Assets</i>			
<i>Accounts Receivable</i>	\$ 50,000	\$250,000	60,000
<i>Construction-in-progress inventory</i>	\$540,000	\$2,340,000	0
<i>Billings on contract.....</i>	<u>(450,000)</u>	<u>(1,750,000)</u>	<u>0</u>
<i>Net.....</i>	<u>\$ 90,000</u>	<u>\$590,000</u>	<u>0</u>

*Kameka Construction Limited
Income Statement*

	<u>2016</u>	<u>2017</u>	<u>2018</u>
<i>Revenue from contract</i>	\$0	0	\$3,200,000
<i>Costs of construction.....</i>	<u>0</u>	<u>0</u>	<u>3,100,000</u>
<i>Gross margin on construction contract</i>	<u>\$0</u>	<u>\$0</u>	<u>\$ 100,000</u>

Present Value Financial Tables

Table	2: PRESENT VALUE of \$1.00 that is received in the future.											
Period/Per	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.9900990	0.9803922	0.9708738	0.9615385	0.9523810	0.9433962	0.9345794	0.9259259	0.9174312	0.9090909	0.9009009	0.8928571
2	0.9802960	0.9611688	0.9425959	0.9245562	0.9070295	0.8899964	0.8734387	0.8573388	0.8416800	0.8264463	0.8116224	0.7971939
3	0.9705901	0.9423223	0.9151417	0.8889964	0.8638376	0.8396193	0.8162979	0.7938322	0.7721835	0.7513148	0.7311914	0.7117802
4	0.9609803	0.9238454	0.8884870	0.8548042	0.8227025	0.7920937	0.7628952	0.7350299	0.7084252	0.6830135	0.6587310	0.6355181
5	0.9514657	0.9057308	0.8626088	0.8219271	0.7835262	0.7472582	0.7129862	0.6805832	0.6499314	0.6209213	0.5934513	0.5674269
6	0.9420452	0.8879714	0.8374843	0.7903145	0.7462154	0.7049605	0.6663422	0.6301696	0.5962673	0.5644739	0.5346408	0.5066311
7	0.9327181	0.8705602	0.8130915	0.7599178	0.7106813	0.6650571	0.6227497	0.5834904	0.5470342	0.5131581	0.4816584	0.4523492
8	0.9234832	0.8534904	0.7894092	0.7306902	0.6768394	0.6274124	0.5820091	0.5402689	0.5018663	0.4665074	0.4339265	0.4038832
9	0.9143398	0.8367553	0.7664167	0.7025867	0.6446089	0.5918985	0.5439337	0.5002490	0.4604278	0.4240976	0.3909248	0.3606100
10	0.9052870	0.8203483	0.7440939	0.6755642	0.6139133	0.5583948	0.5083493	0.4631935	0.4224108	0.3855433	0.3521845	0.3219732
11	0.8963237	0.8042630	0.7224213	0.6495809	0.5846793	0.5267875	0.4750928	0.4288829	0.3875329	0.3504939	0.3172833	0.2874761
12	0.8874492	0.7884932	0.7013799	0.6245970	0.5568374	0.4969694	0.4440120	0.3971138	0.3555347	0.3186308	0.2858408	0.2566751
13	0.8786626	0.7730325	0.6809513	0.6005741	0.5303214	0.4688390	0.4149644	0.3676979	0.3261786	0.2896644	0.2575143	0.2291742
14	0.8699630	0.7578750	0.6611178	0.5774751	0.5050680	0.4423010	0.3878172	0.3404610	0.2992465	0.2633313	0.2319948	0.2046198
15	0.8613495	0.7430147	0.6418619	0.5552645	0.4810171	0.4172651	0.3624460	0.3152417	0.2745380	0.2393920	0.2090043	0.1826963
16	0.8528213	0.7284458	0.6231669	0.5339082	0.4581115	0.3936463	0.3387346	0.2918905	0.2518698	0.2176291	0.1882922	0.1631217
17	0.8443775	0.7141626	0.6050164	0.5133732	0.4362967	0.3713644	0.3165744	0.2702690	0.2310732	0.1978447	0.1696326	0.1456443
18	0.8360173	0.7001594	0.5873946	0.4936281	0.4155207	0.3503438	0.2958639	0.2502490	0.2119937	0.1798588	0.1528222	0.1300396
19	0.8277399	0.6864308	0.5702860	0.4746424	0.3957340	0.3305130	0.2765083	0.2317121	0.1944897	0.1635080	0.1376776	0.1161068
20	0.8195445	0.6729713	0.5536758	0.4563869	0.3768895	0.3118047	0.2584190	0.2145482	0.1784309	0.1486436	0.1240339	0.1036668
21	0.8114302	0.6597758	0.5375493	0.4388336	0.3589424	0.2941554	0.2415131	0.1986557	0.1636981	0.1351306	0.1117423	0.0925596
22	0.8033362	0.6468390	0.5218925	0.4219554	0.3418499	0.2775051	0.2257132	0.1839405	0.1501817	0.1228460	0.1006687	0.0826425
23	0.7954418	0.6341559	0.5066917	0.4057263	0.3255713	0.2617973	0.2109469	0.1703153	0.1377814	0.1116782	0.0906925	0.0737880
24	0.7875661	0.6217215	0.4919337	0.3901215	0.3100679	0.2469785	0.1971466	0.1576993	0.1264049	0.1015256	0.0817050	0.0658821
25	0.7797684	0.6095309	0.4776056	0.3751168	0.2953028	0.2329986	0.1842492	0.1460179	0.1159678	0.0922960	0.0736081	0.0588233
26	0.7720480	0.5975793	0.4636947	0.3606892	0.2812407	0.2198100	0.1721955	0.1352018	0.1063925	0.0839055	0.0663136	0.0525208
27	0.7644039	0.5858620	0.4501891	0.3468166	0.2678483	0.2073680	0.1609304	0.1251868	0.0976078	0.0762777	0.0597420	0.0468936
28	0.7568356	0.5743746	0.4370768	0.3334775	0.2550936	0.1956301	0.1504022	0.1159137	0.0895484	0.0693433	0.0538216	0.0418693
29	0.7493421	0.5631123	0.4243464	0.3206514	0.2429463	0.1845567	0.1405628	0.1073275	0.0821545	0.0630394	0.0484879	0.0373833
30	0.7419229	0.5520709	0.4119868	0.3083187	0.2313774	0.1741101	0.1313671	0.0993773	0.0753711	0.0573086	0.0436828	0.0333779
31	0.7345771	0.5412460	0.3999871	0.2964603	0.2203595	0.1642548	0.1227730	0.0920160	0.0691478	0.0520987	0.0393539	0.0298017
32	0.7273041	0.5306333	0.3883370	0.2850579	0.2098662	0.1549574	0.1147411	0.0852000	0.0634384	0.0473624	0.0354540	0.0266087
33	0.7201031	0.5202287	0.3770262	0.2740942	0.1998725	0.1461862	0.1072347	0.0788889	0.0582003	0.0430568	0.0319405	0.0237577
34	0.7129733	0.5100282	0.3660449	0.2635521	0.1903548	0.1379115	0.1002193	0.0730453	0.0533948	0.0391425	0.0287752	0.0212123
35	0.7059142	0.5000276	0.3553834	0.2534155	0.1812903	0.1301052	0.0936629	0.0676345	0.0489861	0.0355841	0.0259236	0.0189395
36	0.6989249	0.4902232	0.3450324	0.2436687	0.1726574	0.1227408	0.0875355	0.0626246	0.0449413	0.0323492	0.0233546	0.0169103
37	0.6920049	0.4806109	0.3349829	0.2342968	0.1644356	0.1157932	0.0818088	0.0579857	0.0412306	0.0294083	0.0210402	0.0150985
38	0.6851534	0.4711872	0.3252262	0.2252854	0.1566054	0.1092389	0.0764569	0.0536905	0.0378262	0.0267349	0.0189551	0.0134808
39	0.6783697	0.4619482	0.3157535	0.2166206	0.1491480	0.1030555	0.0714550	0.0497134	0.0347030	0.0243044	0.0170767	0.0120364
40	0.6716531	0.4528904	0.3065568	0.2082890	0.1420457	0.0972222	0.0667804	0.0460309	0.0318376	0.0220949	0.0153844	0.0107468

Table	4: PRESENT VALUE of Annuity of \$1.00 in arrears.											
Period/Per	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.990099	0.980392	0.970874	0.961538	0.952381	0.943396	0.934579	0.925926	0.917431	0.909091	0.900901	0.892857
2	1.970395	1.941561	1.913470	1.886095	1.859410	1.833393	1.808018	1.783265	1.759111	1.735537	1.712523	1.690051
3	2.940985	2.883883	2.828611	2.775091	2.723248	2.673012	2.624316	2.577097	2.531295	2.486852	2.443715	2.401831
4	3.901966	3.807729	3.717098	3.629895	3.545951	3.465106	3.387211	3.312127	3.239720	3.169865	3.102446	3.037349
5	4.853431	4.713460	4.579707	4.451822	4.329477	4.212364	4.100197	3.992710	3.889651	3.790787	3.695897	3.604776
6	5.795476	5.601431	5.417191	5.242137	5.075692	4.917324	4.766540	4.622880	4.485919	4.355261	4.230538	4.111407
7	6.728195	6.471991	6.230283	6.002055	5.786373	5.582381	5.389289	5.206370	5.032953	4.868419	4.712196	4.563757
8	7.651678	7.325481	7.019692	6.732745	6.463213	6.209794	5.971299	5.746639	5.534819	5.334926	5.146123	4.967640
9	8.566018	8.162237	7.786109	7.435332	7.107822	6.801692	6.515232	6.246888	5.995247	5.759024	5.537048	5.328250
10	9.471305	8.982585	8.530203	8.110896	7.721735	7.360087	7.023582	6.710081	6.417658	6.144567	5.889232	5.650223
11	10.367628	9.786848	9.252624	8.760477	8.306414	7.886875	7.498674	7.138964	6.805191	6.495061	6.206515	5.937699
12	11.255077	10.575341	9.954004	9.385074	8.863252	8.383844	7.942686	7.536078	7.160725	6.813692	6.492356	6.194374
13	12.133740	11.348374	10.634955	9.985648	9.393573	8.852683	8.357651	7.903776	7.486904	7.103356	6.749870	6.423548
14	13.003703	12.106249	11.296073	10.563123	9.898641	9.294984	8.745468	8.244237	7.786150	7.366687	6.981865	6.628168
15	13.865053	12.849264	11.937935	11.118387	10.379658	9.712249	9.107914	8.559479	8.060688	7.606080	7.190870	6.810864
16	14.717874	13.577709	12.561102	11.652296	10.837770	10.105895	9.446649	8.851369	8.312558	7.823709	7.379162	6.973986
17	15.562251	14.291872	13.166118	12.165669	11.274066	10.477260	9.763223	9.121638	8.543631	8.021553	7.548794	7.119630
18	16.398269	14.992031	13.753513	12.659297	11.689587	10.827603	10.059087	9.371887	8.755625	8.201412	7.701617	7.249670
19	17.226008	15.678462	14.323799	13.133939	12.085321	11.158116	10.335595	9.603599	8.950115	8.364920	7.839294	7.365777
20	18.045553	16.351433	14.877475	13.590326	12.462210	11.469921	10.594014	9.818147	9.128546	8.513564	7.963328	7.469444
21	18.856983	17.011209	15.415024	14.029160	12.821153	11.764077	10.835527	10.016803	9.292244	8.648694	8.075070	7.562003
22	19.660379	17.658048	15.936917	14.451115	13.163003	12.041582	11.061240	10.200744	9.442425	8.771540	8.175739	7.644646
23	20.455821	18.292204	16.443608	14.856842	13.488574	12.303379	11.272187	10.371059	9.580207	8.883218	8.266432	7.718434
24	21.243387	18.913926	16.935542	15.246963	13.798642	12.550358	11.469334	10.528758	9.706612	8.984744	8.348137	7.784316
25	22.023156	19.523456	17.413148	15.622080	14.093945	12.783356	11.653583	10.674776	9.822580	9.077040	8.421745	7.843139
26	22.795204	20.121036	17.876842	15.982769	14.375185	13.003166	11.825779	10.809978	9.928972	9.160945	8.488058	7.895660
27	23.559608	20.706898	18.327031	16.329586	14.643034	13.210534	11.986709	10.935165	10.026580	9.237223	8.547800	7.942554
28	24.316443	21.281272	18.764108	16.663063	14.898127	13.406164	12.137111	11.051078	10.116128	9.306567	8.601622	7.984423
29	25.065785	21.844385	19.188455	16.983715	15.141074	13.590721	12.277674	11.158406	10.198283	9.369606	8.650110	8.021806
30	25.807708	22.396456	19.600441	17.292033	15.372451	13.764831	12.409041	11.257783	10.273654	9.426914	8.693793	8.055184
31	26.542285	22.937702	20.000428	17.588494	15.592811	13.929086	12.531814	11.349799	10.342802	9.479013	8.733146	8.084986
32	27.269589	23.468335	20.388766	17.873551	15.802677	14.084043	12.646555	11.434999	10.406240	9.526376	8.768600	8.111594
33	27.989693	23.988564	20.765792	18.147646	16.002549	14.230230	12.753790	11.513888	10.464441	9.569432	8.800541	8.135352
34	28.702666	24.498592	21.131837	18.411198	16.192904	14.368141	12.854009	11.586934	10.517835	9.608575	8.829316	8.156564
35	29.408580	24.998619	21.487220	18.664613	16.374194	14.498246	12.947672	11.654568	10.566821	9.644159	8.855240	8.175504
36	30.107505	25.488842	21.832252	18.908282	16.546852	14.620987	13.035208	11.717193	10.611763	9.676508	8.878594	8.192414
37	30.799510	25.969453	22.167235	19.142579	16.711287	14.736780	13.117017	11.775179	10.652993	9.705917	8.899635	8.207513
38	31.484663	26.440641	22.492462	19.367864	16.867893	14.846019	13.193473	11.828869	10.690820	9.732651	8.918590	8.220993
39	32.163033	26.902589	22.808215	19.584485	17.017041	14.949075	13.264928	11.878582	10.725523	9.756956	8.935666	8.233030
40	32.834686	27.355479	23.114772	19.792774	17.159086	15.046297	13.331709	11.924613	10.757360	9.779051	8.951051	8.243777