CIMA

Financial Management Pillar

Managerial Level Paper

P8 – Financial Analysis

22 May 2007 – Tuesday Afternoon Session

Instructions to candidates

You are allowed three hours to answer this question paper.
You are allowed 20 minutes reading time **before the examination begins** during which you should read the question paper and, if you wish, highlight and/or make notes on the question paper. However, you will **not** be allowed, **under any circumstances**, to open the answer book and start writing or use your calculator during this reading time.
You are strongly advised to carefully read ALL the question requirements before attempting the question concerned (including all parts and/or sub-questions). The question requirements for questions in Sections B and C are highlighted in a dotted box.
ALL answers must be written in the answer book. Answers written on the question paper will **not** be submitted for marking.
Answer the ONE compulsory question in Section A. This has 9 objective test questions on pages 2 to 5.
Answer ALL THREE questions in Section B on pages 6 to 9.
Answer TWO of the three questions in Section C on pages 10 to 15.
Maths Tables and Formulae are provided on pages 17 to 19. These are detachable for ease of reference.
The list of verbs as published in the syllabus is given for reference on the inside back cover of this question paper.
Write your candidate number, the paper number and examination subject title in the spaces provided on the front of the answer book. Also write your contact ID and name in the space provided in the right hand margin and seal to close.
Tick the appropriate boxes on the front of the answer book to indicate which questions you have answered.

P8 – Financial Analysis

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SECTION A – 20 MARKS

[indicative time for answering this Section is 36 minutes]

ANSWER ALL NINE SUB-QUESTIONS

Instructions for answering Section A:

The answers to the nine sub-questions in Section A should ALL be written in your answer book.

Your answers should be clearly numbered with the sub-question number and then ruled off, so that the markers know which sub-question you are answering. **For multiple choice questions, you need only write the sub-question number and the letter of the answer option you have chosen**. You do not need to start a new page for each sub-question.

For sub-question **1.8** you should show your workings as marks are available for method for this sub-question.

Question One

1.1 On 1 January 2005, CD purchased 30% of the ordinary share capital of EF for $280,000, which gave it significant influence over EF's activities. In the financial year ended 31 December 2005, EF reported pre-tax profits of $62,000. The tax charge was $20,000. During the financial year ended 31 December 2005, EF paid a total dividend of $5,000 to its shareholders.

In the year ended 31 December 2006, EF made a pre-tax loss of $18,000, with a tax credit of $4,000. A review of CD's investment in EF at 31 December 2006 concluded that an impairment had taken place. An impairment loss of $45,000 was charged in CD's consolidated financial statements for the year.

The carrying amount of the investment in EF to be included in CD's consolidated balance sheet at 31 December 2006 was

A $241,900.

B $243,400.

C $246,700.

D $258,000.

(2 marks)

1.2 STV owns 75% of the ordinary share capital of its subsidiary TUW. At the group's year end, 28 February 2007, STV's payables include $3,600 in respect of inventories sold to it by TUW.

TUW's receivables include $6,700 in respect of inventories sold to STV. Two days before the year end STV sent a payment of $3,100 to TUW that was not recorded by the latter until two days after the year end.

The in-transit item should be dealt with as follows in the consolidated balance sheet at 28 February 2007:

A $2,325 to be included as cash in transit

B $3,100 to be added to consolidated payables

C $3,100 to be included as inventories in transit

D $3,100 to be included as cash in transit

(2 marks)

1.3 The directors of BN, an unlisted entity, have approached the directors of DL, a smaller listed entity, to propose an agreed takeover of BN by DL. The net assets of BN are approximately three times as great as those of DL.

The type of arrangement proposed is known as a

A fresh start acquisition.

B merger.

C reverse acquisition.

D listed acquisition.

(2 marks)

1.4 IAS 21 *The Effects of Changes in Foreign Exchange Rates* permits an entity to choose a presentation currency that is different from its functional currency.

Identify ONE reason why an entity might choose to exercise this choice.

(2 marks)

Section A continues on the next page

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1.5 At 31 March 2007, the present value of AZB's pension obligation is $1,634,000. The fair value of the pension plan assets is $1,337,000. Unrecognised actuarial losses are $224,000.

What is the amount of the liability in respect of the pension scheme that should be recognised in the balance sheet?

A $73,000

B $297,000

C $521,000

D $1,634,000

(2 marks)

1.6 In respect of deprival value, which ONE of the following statements is correct?

A Value to the business is the higher of replacement cost and recoverable amount.

B Value to the business is the lower of value in use and realisable value.

C Recoverable amount is the higher of value in use and realisable value.

D Recoverable amount is the lower of realisable value and replacement cost.

(2 marks)

1.7 An analyst is comparing the non-current asset turnover ratios of two listed businesses engaged in similar activities. The non-current asset turnover ratio of one entity is almost 50% higher than that of the other entity, and she concludes that the entity with the higher non-current asset turnover ratio is utilising its assets far more effectively.

Identify TWO possible reasons why this conclusion might not be valid.

(2 marks)

1.8 Several years ago DVS acquired 75% of the ordinary share capital of EWT at a cost of $1·7 million. The fair value of the total net assets of EWT at the date of acquisition was $1·8 million. Net assets of EWT at 31 January 2007 totalled $4·7 million. On that date DVS disposed of 10% of the ordinary share capital of EWT, leaving it holding 65% of EWT's ordinary shares. The disposal proceeds were $900,000. A capital investment gains tax of 30% is charged to DVS on its profit on disposal. There has been no impairment of goodwill since the acquisition of the shares in EWT.

Calculate the amount of gain or loss on disposal that, net of tax, should be included in the consolidated financial statements of the DVS group for the year ended 31 January 2007. Work to the nearest $.

(4 marks)

1.9 HGG, whose functional currency is the $, has invested 4·75 million euro in purchasing a majority shareholding in JXF. The investment in JXF is financed by a loan in euro. The directors of HGG decide to designate the loan as a hedging instrument and the investment as the related hedged transaction.

Describe the accounting treatment of any gains or losses arising on the investment and the loan, assuming that the hedging relationship meets all the conditions required by IAS 39 *Financial Instruments: Recognition and Measurement* to qualify for hedge accounting.

(2 marks)

(Total for Section A = 20 marks)

Reminder

All answers to Section A must be written in your answer book.

Answers to Section A written on the question paper will **not** be submitted for marking.

End of Section A

Section B starts on page 6

TURN OVER

SECTION B – 30 MARKS

[indicative time for answering this Section is 54 minutes]

ANSWER *ALL* THREE QUESTIONS

Question Two

On 1 November 2005, AB purchased 75% of the issued share capital of CD at a cost of $204,000. CD's issued share capital at the date of acquisition was $50,000 in $1 shares, and its retained earnings were $142,000 (there were no other reserves).

At that date, the carrying value of CD's property, plant and equipment was $150,000, split as follows:

	$	
Land and buildings	105,000	(including land at cost of $35,000)
Plant and equipment	45,000	
	150,000	

The fair value exercise carried out at acquisition showed that the fair value of CD's land and buildings was $125,000, of which $45,000 was attributable to land. The carrying value of plant and equipment approximated to fair value, and no adjustment was considered necessary. An intangible asset representing intellectual property rights, which had previously been unrecognised by CD, was recognised at a value of $10,000 at the date of acquisition. The directors decided that this asset should be amortised at the rate of 2·5% each month on the straight line basis. The intangible asset and the revaluation of land and buildings are recognised as consolidation adjustments only; they are not recognised in CD's own financial statements.

At 1 November 2005, the remaining useful life of CD's buildings was estimated at 21·5 years. Depreciation on buildings is calculated each month on the straight line basis.

A further revaluation exercise was conducted at 1 November 2006. The fair value of CD's land and buildings had increased by a further $20,000, half attributable to land and half to buildings. The estimate of the remaining useful life of the buildings was consistent with the estimate on 1 November 2005. AB's group policy is to adopt the revaluation model in respect of land and buildings.

At the group's year end on 30 April 2007, the retained earnings of AB were $365,000 and the retained earnings of CD were $183,000. During the financial year, CD had started supplying goods to AB at a mark-up of 17% on cost. AB's inventories at 30 April 2007 included $6,000 in respect of goods supplied by CD.

Since 1 November 2005, CD has been AB's only subsidiary.

The requirement for Question Two is on the opposite page

Required:

Calculate the amounts to be included in the consolidated balance sheet of the AB group at 30 April 2007 for:

(i) Goodwill (assuming that there has been no impairment of goodwill since acquisition);

(ii) Consolidated retained earnings;

(iii) Minority interest.

Work to the nearest $.

(10 marks)

Section B continues on the next page

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Question Three

BAQ is a listed entity with a financial year end of 31 March. At 31 March 2007, it had 8,000,000 ordinary shares in issue.

The directors of BAQ wish to expand the business's operations by acquiring competitor entities. They intend to make no more than one acquisition in any financial year.

The directors are about to meet to discuss two possible acquisitions. Their principal criterion for the decision is the likely effect of the acquisition on group earnings per share.

Details of the possible acquisitions are as follows:

1. *Acquisition of CBR*
   - 100% of the share capital of CBR could be acquired on 1 October 2007 for a new issue of shares in BAQ;
   - CBR has 400,000 ordinary shares in issue;
   - Four CBR shares would be exchanged for three new shares in BAQ;
   - CBR's profit after tax for the year ended 31 March 2007 was $625,000 and the entity's directors are projecting a 10% increase in this figure for the year ending 31 March 2008.

2. *Acquisition of DCS*
   - 80% of the share capital of DCS could be acquired on 1 October 2007 for a cash payment of $10·00 per share;
   - DCS has 1,000,000 ordinary shares in issue;
   - The cash would be raised by a rights issue to BAQ's existing shareholders. For the purposes of evaluation it can be assumed that the rights issue would take place on 1 October 2007, that it would be fully taken up, that the market value of one share in BAQ on that date would be $5·36, and that the terms of the rights issue would be one new share for every five BAQ shares held at a rights price of $5·00;
   - DCS's projected profit after tax for the year ending 31 March 2008 is $860,000.

BAQ's profit after tax for the year ended 31 March 2008 is projected to be $4·2 million. No changes in BAQ's share capital are likely to take place, except in respect of the possible acquisitions described above.

Required:

Calculate the group earnings per share that could be expected for the year ending 31 March 2008 in respect of each of the acquisition scenarios outlined above.

(10 marks)

Section B continues on the next page

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Question Four

You have been asked by a colleague to present a brief paper to accounting students at the local university about recent attempts at convergence between International Financial Reporting Standards (IFRS) and US Generally Accepted Accounting Practice (GAAP). The students are knowledgeable about IFRS, but have not studied US GAAP in any detail.

Required:

Prepare the paper, describing the progress to date of the convergence project, including some examples of areas of accounting where convergence has taken place.

(10 marks)

(Total for Section B = 30 marks)

End of Section B

Section C starts on page 10

TURN OVER

SECTION C – 50 MARKS

[indicative time for answering this Section is 90 minutes]

ANSWER *TWO* QUESTIONS OUT OF THREE

Question Five

BSP, a listed entity, supplies, installs and maintains burglar alarm systems for business clients. As a response to increased competition and falling margins in the burglar alarm market, the entity's directors decided, towards the end of 2005, to extend its operations into the provision of fire alarm and sprinkler systems. A training programme for staff was undertaken in the early months of 2006 at a cost of around $200,000. An aggressive marketing campaign, costing $250,000, was launched at the same time. Both costs were incurred and settled before the 31 March 2006 year end. BSP commenced its new operations with effect from the beginning of its financial year on 1 April 2006.

BSP's cash resources were at a low level in early 2006, so, in order to finance the costs of the new operation and the necessary increase in working capital to fund the new operations, BSP made a new issue of shares. The issue took place in May 2006. During March 2007, BSP disposed of its two overseas subsidiaries in order to concentrate on operations in its home market. Both were profitable businesses and therefore sold for an amount substantially in excess of carrying value. These subsidiaries accounted for almost 10% of group sales during the 2006/2007 financial year.

As the finance director's assistant you have been responsible for the preparation of the draft financial statements, which have been circulated to the directors in advance of a board meeting to be held later this week.

The marketing director, who was appointed in June 2006, has sent you the following e-mail:

> "When I did my university course in marketing I studied a module in finance and accounting, which covered the analysis of financial statements. Unfortunately, it was a long time ago, and I've forgotten quite a lot about it.
>
> I'm puzzled by the cash flow statement, in particular. The income statement shows a loss, which is obviously bad news, especially as the budget showed a profit for the year. However, the cash resources of the business have actually increased by quite a large amount between March 2006 and March 2007. It is said that "cash is king", so I'm assuming that the poor profitability is a short-term problem while the new operation settles down.
>
> As you know, we almost managed to achieve our sales targets in both the fire and burglar alarm sectors for the year, (although of course we did have to offer some customers special discounts and extended credit as inducements). I'm assuming, therefore, that the lack of profitability is a problem of cost control.
>
> It would be really helpful if you could provide me with a brief report, in advance of this week's meeting, which tells me what this cash flow statement means. You could include ratios, provided that you show how they are calculated."

The consolidated cash flow statement for the year ended 31 March 2007 (with comparative figures for 2006) is as follows:

BSP: Consolidated cash flow statement for the year ended 31 March 2007

	2007 $000	*2007 $000*	*2006 $000*	*2006 $000*
Cash flows from operating activities				
(Loss)/profit before tax	(453)		306	
Adjustments for:				
Depreciation	98		75	
Foreign exchange loss	22		37	
Profit on sale of investments	(667)		-	
Interest expense	161		45	
		(839)		463
Increase in inventories		(227)		(65)
Increase in receivables		(242)		(36)
Increase in payables		62		12
Cash (outflow)/inflow from operations		(1,246)		374
Interest paid		(157)		(42)
Tax paid		(38)		(55)
Net cash (outflow)/inflow from operating activities		(1,441)		277
Cash flows from investing activities				
Proceeds from sale of investments	2,320		-	
Purchase of property, plant and equipment	(661)		(425)	
Income from associates	23		26	
Net cash inflow/(outflow) from investing activities		1,682		(399)
Cash flows from financing activities				
Proceeds from issue of share capital	850		-	
Dividends paid	-		(200)	
Net cash inflow/(outflow) from financing activities		850		(200)
Net increase/(decrease) in cash		1,091		(322)
Cash at start of period		27		349
Cash at end of period		1,118		27

Additional information:

Revenue in the 2005/06 financial year was \$12·11 million. In the 2006/07 financial year, total revenue was \$12·32 million, \$10·93 million of which arose in respect of the sale of burglar alarms.

Inventories at the start of the 2005/06 financial year were \$591,000, and receivables were \$1,578,000. There was no increase in long-term borrowings throughout the two year period covered by the cash flow statement above.

Required:

Analyse and interpret the information given, and produce a report to the marketing director. The report should explain the difference between cash and profit, and should discuss the business's profitability and working capital position. It should also discuss, to the extent possible from the information given, the prospects for BSP's future.

(Total for Question Five = 25 marks)

TURN OVER

Question Six

You are the accounting adviser to a committee of bank lending officers. Each loan application is subject to an initial vetting procedure, which involves the examination of the application, recent financial statements, and a set of key financial ratios.

The key ratios are as follows:

- Gearing (calculated as debt/debt + equity, where debt includes both long- and short-term borrowings);
- Current ratio;
- Quick ratio;
- Profit margin (using profit before tax).

Existing levels of gearing are especially significant to the decision, and the committee usually rejects any application from an entity with gearing of over 45%.

The committee will shortly meet to conduct the initial vetting of a commercial loan application made by TYD, an unlisted entity. As permitted by national accounting law in its country of registration, TYD does not comply in all respects with International Financial Reporting Standards. The committee has asked you to interview TYD's finance director to determine areas of non-compliance. As a result of the interview, you have identified two significant areas for examination in respect of TYD's financial statements for the year ended 30 September 2006.

1. Revenue for the period includes a sale of inventories at cost to HPS, a banking institution, for $85,000, which took place on 30 September 2006. HPS has an option under the contract of sale to require TYD to repurchase the inventories on 30 September 2008, for $95,000. TYD has derecognised the inventories at their cost of $85,000, with a charge to cost of sales of this amount. The inventories concerned in this transaction, are, however, stored on TYD's premises, and TYD bears the cost of insuring them.

2. Some categories of TYD's inventories are sold on a sale or return basis. The entity's accounting policy in this respect is to recognise the sale at the point of despatch of goods. The standard margin on sales of this type is 20%. During the year ended 30 September 2006, $100,000 (in sales value) has been despatched in this way. The finance director estimates that approximately 60% of this value represents sales that have been accepted by customers; the remainder is potentially subject to return.

The financial statements of TYD for the year ended 30 September 2006 are as presented below. (Note: at this stage of the analysis only one year's figures are considered).

TYD: Income statement for the year ended 30 September 2006

	$000
Revenue	600
Cost of sales	450
Gross profit	150
Expenses	63
Finance costs	17
Profit before tax	70
Income tax expense	25
Profit for the period	45

TYD: Statement of changes in equity for the year ended 30 September 2006

	Share capital $000	*Retained earnings $000*	*Total $000*
Balances at 1 October 2005	100	200	300
Profit for the period		45	45
Balances at 30 September 2006	100	245	345

TYD: Balance sheet at 30 September 2006

	$000	$000
ASSETS		
Non-current assets:		
Property, plant and equipment		527
Current assets:		
Inventories	95	
Trade receivables	72	
Cash	6	
		173
		700
EQUITY AND LIABILITIES		
Equity:		
Called up share capital	100	
Retained earnings	245	
		345
Non-current liabilities:		
Long-term borrowings		180
Current liabilities:		
Trade and other payables	95	
Bank overdraft	80	
		175
		700

Required:

Prepare a report to the committee of lending officers that

(i) discusses the accounting treatment of the two significant areas identified in the interview with the FD, with reference to the requirements of International Financial Reporting Standards (IFRS) and to fundamental accounting principles;

(8 marks)

(ii) calculates any adjustments to the financial statements that are required in order to bring them into compliance with IFRS (ignore tax);

(5 marks)

(iii) analyses and interprets the financial statements, calculating the key ratios before and after adjustments, and making a recommendation to the lending committee on whether or not to grant TYD's application for a commercial loan.

(12 marks)

(Total for Question Six = 25 marks)

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Question Seven

AT holds investments in three other entities. The draft income statements for the four entities for the year ended 31 March 2007 are as follows:

	AT	*BU*	*CV*	*DW*
	$000	*$000*	*$000*	*$000*
Revenue	2,450	1,200	675	840
Cost of sales	(1,862)	(870)	(432)	(580)
Gross profit	588	330	243	260
Distribution costs	(94)	(22)	(77)	(18)
Administrative expenses	(280)	(165)	(120)	(126)
Interest received	-	2	-	-
Finance costs	(26)	-	-	-
Profit before tax	188	145	46	116
Income tax	(40)	(50)	(12)	(37)
Profit for the period	148	95	34	79

NOTES

Note 1: *Investments in BU, CV and DW*
Several years ago AT purchased 75% of the ordinary shares of BU. On 30 September 2006 it purchased a further 5% of BU's ordinary shares. In 2003 AT, together with two other investor entities, set up CV. Each of the three investors owns one-third of the ordinary shares in CV. All managerial decisions relating to CV are made jointly by the three investor entities. On 1 January 2007, AT purchased 35% of the ordinary shares in DW. AT exerts significant influence over the management of DW, but does not control the entity.

Note 2: *Intra-group trading*
BU supplies inventories to AT, earning a gross profit margin of 20% on such sales. During the financial year ended 31 March 2007, BU supplied a total of $80,000 at selling price to AT. Of these items, 25% remained in AT's inventories at the year end. AT supplies a range of administrative services to BU, at cost. $12,000 is included in BU's administrative expenses, and in AT's revenue, in respect of such services supplied during the year ended 31 March 2007.

Note 3: The group has a policy of adopting proportional consolidation wherever permitted by International Financial Reporting Standards.

Note 4: Revenue and profits accrue evenly throughout the year, unless otherwise stated.

Note 5: *Finance costs*
The finance costs in AT's income statement are in respect of short-term bank borrowings only. Finance costs in respect of its long-term borrowings have not yet been included, and an appropriate adjustment must be made. On 1 April 2004, AT issued bonds at par in the amount of $1,000,000. Issue costs were $50,000. The bonds carry a coupon rate of interest of 5% each year, payable on the last day of the financial year. The interest actually paid on 31 March 2007 has been debited to a suspense account, which is included under current assets in AT's draft balance sheet. The bonds will be repaid on 31 March 2009 at a premium of $162,000. The effective interest rate associated with the bonds is 9%, and the liability is measured, in accordance with IAS 39 *Financial Instruments: Recognition and Measurement,* at amortised cost.

Note 6: *Financial asset*
From time to time BU uses available cash surpluses to make short term investments in financial assets. Such assets are "held-for-trading" and are invariably sold within a few months. At 31 March 2007, BU held 4,000 shares in a listed entity, EX. The shares had been purchased on 20 January 2007 at a price of 1332¢ per share. At 31 March 2007, the market price per share was 1227¢. No adjustment has been made to the draft income statement above in respect of this financial asset.

Required:

Prepare the consolidated income statement for the AT group for the financial year ended 31 March 2007. Show full workings.

(Total for Question Seven = 25 marks)

Note: 8 marks are available for the adjustments in respect of notes 5 and 6.

Work to nearest $100. For the purposes of this question it is not necessary to make any adjustments to income tax.

(Total for Section C = 50 marks)

End of Question Paper

Maths Tables and Formulae are on pages 17 to 19

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MATHS TABLES AND FORMULAE

Present value table

Present value of $1, that is $(1 + r)^{-n}$ where r = interest rate; n = number of periods until payment or receipt.

Periods	Interest rates (r)									
(n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%
1	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909
2	0.980	0.961	0.943	0.925	0.907	0.890	0.873	0.857	0.842	0.826
3	0.971	0.942	0.915	0.889	0.864	0.840	0.816	0.794	0.772	0.751
4	0.961	0.924	0.888	0.855	0.823	0.792	0.763	0.735	0.708	0.683
5	0.951	0.906	0.863	0.822	0.784	0.747	0.713	0.681	0.650	0.621
6	0.942	0.888	0.837	0.790	0.746	0705	0.666	0.630	0.596	0.564
7	0.933	0.871	0.813	0.760	0.711	0.665	0.623	0.583	0.547	0.513
8	0.923	0.853	0.789	0.731	0.677	0.627	0.582	0.540	0.502	0.467
9	0.914	0.837	0.766	0.703	0.645	0.592	0.544	0.500	0.460	0.424
10	0.905	0.820	0.744	0.676	0.614	0.558	0.508	0.463	0.422	0.386
11	0.896	0.804	0.722	0.650	0.585	0.527	0.475	0.429	0.388	0.350
12	0.887	0.788	0.701	0.625	0.557	0.497	0.444	0.397	0.356	0.319
13	0.879	0.773	0.681	0.601	0.530	0.469	0.415	0.368	0.326	0.290
14	0.870	0.758	0.661	0.577	0.505	0.442	0.388	0.340	0.299	0.263
15	0.861	0.743	0.642	0.555	0.481	0.417	0.362	0.315	0.275	0.239
16	0.853	0.728	0.623	0.534	0.458	0.394	0.339	0.292	0.252	0.218
17	0.844	0.714	0.605	0.513	0.436	0.371	0.317	0.270	0.231	0.198
18	0.836	0.700	0.587	0.494	0.416	0.350	0.296	0.250	0.212	0.180
19	0.828	0.686	0.570	0.475	0.396	0.331	0.277	0.232	0.194	0.164
20	0.820	0.673	0.554	0.456	0.377	0.312	0.258	0.215	0.178	0.149

Periods	Interest rates (r)									
(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%
1	0.901	0.893	0.885	0.877	0.870	0.862	0.855	0.847	0.840	0.833
2	0.812	0.797	0.783	0.769	0.756	0.743	0.731	0.718	0.706	0.694
3	0.731	0.712	0.693	0.675	0.658	0.641	0.624	0.609	0.593	0.579
4	0.659	0.636	0.613	0.592	0.572	0.552	0.534	0.516	0.499	0.482
5	0.593	0.567	0.543	0.519	0.497	0.476	0.456	0.437	0.419	0.402
6	0.535	0.507	0.480	0.456	0.432	0.410	0.390	0.370	0.352	0.335
7	0.482	0.452	0.425	0.400	0.376	0.354	0.333	0.314	0.296	0.279
8	0.434	0.404	0.376	0.351	0.327	0.305	0.285	0.266	0.249	0.233
9	0.391	0.361	0.333	0.308	0.284	0.263	0.243	0.225	0.209	0.194
10	0.352	0.322	0.295	0.270	0.247	0.227	0.208	0.191	0.176	0.162
11	0.317	0.287	0.261	0.237	0.215	0.195	0.178	0.162	0.148	0.135
12	0.286	0.257	0.231	0.208	0.187	0.168	0.152	0.137	0.124	0.112
13	0.258	0.229	0.204	0.182	0.163	0.145	0.130	0.116	0.104	0.093
14	0.232	0.205	0.181	0.160	0.141	0.125	0.111	0.099	0.088	0.078
15	0.209	0.183	0.160	0.140	0.123	0.108	0.095	0.084	0.079	0.065
16	0.188	0.163	0.141	0.123	0.107	0.093	0.081	0.071	0.062	0.054
17	0.170	0.146	0.125	0.108	0.093	0.080	0.069	0.060	0.052	0.045
18	0.153	0.130	0.111	0.095	0.081	0.069	0.059	0.051	0.044	0.038
19	0.138	0.116	0.098	0.083	0.070	0.060	0.051	0.043	0.037	0.031
20	0.124	0.104	0.087	0.073	0.061	0.051	0.043	0.037	0.031	0.026

Cumulative present value of $1 per annum

Receivable or Payable at the end of each year for *n* years $\frac{1-(1+r)^{-n}}{r}$

Periods	Interest rates (*r*)									
(*n*)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%
1	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909
2	1.970	1.942	1.913	1.886	1.859	1.833	1.808	1.783	1.759	1.736
3	2.941	2.884	2.829	2.775	2.723	2.673	2.624	2.577	2.531	2.487
4	3.902	3.808	3.717	3.630	3.546	3.465	3.387	3.312	3.240	3.170
5	4.853	4.713	4.580	4.452	4.329	4.212	4.100	3.993	3.890	3.791
6	5.795	5.601	5.417	5.242	5.076	4.917	4.767	4.623	4.486	4.355
7	6.728	6.472	6.230	6.002	5.786	5.582	5.389	5.206	5.033	4.868
8	7.652	7.325	7.020	6.733	6.463	6.210	5.971	5.747	5.535	5.335
9	8.566	8.162	7.786	7.435	7.108	6.802	6.515	6.247	5.995	5.759
10	9.471	8.983	8.530	8.111	7.722	7.360	7.024	6.710	6.418	6.145
11	10.368	9.787	9.253	8.760	8.306	7.887	7.499	7.139	6.805	6.495
12	11.255	10.575	9.954	9.385	8.863	8.384	7.943	7.536	7.161	6.814
13	12.134	11.348	10.635	9.986	9.394	8.853	8.358	7.904	7.487	7.103
14	13.004	12.106	11.296	10.563	9.899	9.295	8.745	8.244	7.786	7.367
15	13.865	12.849	11.938	11.118	10.380	9.712	9.108	8.559	8.061	7.606
16	14.718	13.578	12.561	11.652	10.838	10.106	9.447	8.851	8.313	7.824
17	15.562	14.292	13.166	12.166	11.274	10.477	9.763	9.122	8.544	8.022
18	16.398	14.992	13.754	12.659	11.690	10.828	10.059	9.372	8.756	8.201
19	17.226	15.679	14.324	13.134	12.085	11.158	10.336	9.604	8.950	8.365
20	18.046	16.351	14.878	13.590	12.462	11.470	10.594	9.818	9.129	8.514

Periods	Interest rates (*r*)									
(*n*)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%
1	0.901	0.893	0.885	0.877	0.870	0.862	0.855	0.847	0.840	0.833
2	1.713	1.690	1.668	1.647	1.626	1.605	1.585	1.566	1.547	1.528
3	2.444	2.402	2.361	2.322	2.283	2.246	2.210	2.174	2.140	2.106
4	3.102	3.037	2.974	2.914	2.855	2.798	2.743	2.690	2.639	2.589
5	3.696	3.605	3.517	3.433	3.352	3.274	3.199	3.127	3.058	2.991
6	4.231	4.111	3.998	3.889	3.784	3.685	3.589	3.498	3.410	3.326
7	4.712	4.564	4.423	4.288	4.160	4.039	3.922	3.812	3.706	3.605
8	5.146	4.968	4.799	4.639	4.487	4.344	4.207	4.078	3.954	3.837
9	5.537	5.328	5.132	4.946	4.772	4.607	4.451	4.303	4.163	4.031
10	5.889	5.650	5.426	5.216	5.019	4.833	4.659	4.494	4.339	4.192
11	6.207	5.938	5.687	5.453	5.234	5.029	4.836	4.656	4.486	4.327
12	6.492	6.194	5.918	5.660	5.421	5.197	4.988	7.793	4.611	4.439
13	6.750	6.424	6.122	5.842	5.583	5.342	5.118	4.910	4.715	4.533
14	6.982	6.628	6.302	6.002	5.724	5.468	5.229	5.008	4.802	4.611
15	7.191	6.811	6.462	6.142	5.847	5.575	5.324	5.092	4.876	4.675
16	7.379	6.974	6.604	6.265	5.954	5.668	5.405	5.162	4.938	4.730
17	7.549	7.120	6.729	6.373	6.047	5.749	5.475	5.222	4.990	4.775
18	7.702	7.250	6.840	6.467	6.128	5.818	5.534	5.273	5.033	4.812
19	7.839	7.366	6.938	6.550	6.198	5.877	5.584	5.316	5.070	4.843
20	7.963	7.469	7.025	6.623	6.259	5.929	5.628	5.353	5.101	4.870

FORMULAE

Annuity
Present value of an annuity of $1 per annum receivable or payable for *n* years, commencing in one year, discounted at *r*% per annum:

$$PV = \frac{1}{r}\left[1 - \frac{1}{[1+r]^n}\right]$$

Perpetuity
Present value of $1 per annum receivable or payable in perpetuity, commencing in one year, discounted at *r*% per annum:

$$PV = \frac{1}{r}$$

Growing Perpetuity
Present value of $1 per annum, receivable or payable, commencing in one year, growing in perpetuity at a constant rate of *g*% per annum, discounted at *r*% per annum:

$$PV = \frac{1}{r-g}$$

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LIST OF VERBS USED IN THE QUESTION REQUIREMENTS

A list of the learning objectives and verbs that appear in the syllabus and in the question requirements for each question in this paper.

It is important that you answer the question according to the definition of the verb.

LEARNING OBJECTIVE	VERBS USED	DEFINITION
1 KNOWLEDGE		
What you are expected to know.	List	Make a list of
	State	Express, fully or clearly, the details of/facts of
	Define	Give the exact meaning of
2 COMPREHENSION		
What you are expected to understand.	Describe	Communicate the key features
	Distinguish	Highlight the differences between
	Explain	Make clear or intelligible/State the meaning of
	Identify	Recognise, establish or select after consideration
	Illustrate	Use an example to describe or explain something
3 APPLICATION		
How you are expected to apply your knowledge.	Apply	To put to practical use
	Calculate/compute	To ascertain or reckon mathematically
	Demonstrate	To prove with certainty or to exhibit by practical means
	Prepare	To make or get ready for use
	Reconcile	To make or prove consistent/compatible
	Solve	Find an answer to
	Tabulate	Arrange in a table
4 ANALYSIS		
How are you expected to analyse the detail of what you have learned.	Analyse	Examine in detail the structure of
	Categorise	Place into a defined class or division
	Compare and contrast	Show the similarities and/or differences between
	Construct	To build up or compile
	Discuss	To examine in detail by argument
	Interpret	To translate into intelligible or familiar terms
	Produce	To create or bring into existence
5 EVALUATION		
How are you expected to use your learning to evaluate, make decisions or recommendations.	Advise	To counsel, inform or notify
	Evaluate	To appraise or assess the value of
	Recommend	To advise on a course of action

Financial Management Pillar

Managerial Level

P8 – Financial Analysis

May 2007

Tuesday Afternoon Session