Financial Management Pillar

Managerial Level Paper

P8 – Financial Analysis

20 November 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 (that is 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 eight objective test questions on pages 2 to 4.
Answer ALL THREE questions in Section B on pages 6 to 7.
Answer TWO of the three questions in Section C on pages 8 to 13.
Maths Tables are provided on pages 15 to 17. 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

TURN OVER

SECTION A – 20 MARKS

[indicative time for answering this Section is 36 minutes]

ANSWER *ALL* EIGHT SUB-QUESTIONS

Instructions for answering Section A:

The answers to the eight 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-questions **1.3** and **1.6**, you should show your workings as marks are available for method for these sub-questions.

Question One

1.1 GPT regularly sells goods to its subsidiary in which it owns 60% of the ordinary share capital. During the group's financial year ended 31 August 2007, GPT sold goods to its subsidiary valued at $100,000 (selling price) upon which it makes a margin of 20%. By the group's year end all of the goods had been sold to parties outside the group.

What is the correct consolidation adjustment in respect of these sales for the year ended 31 August 2007?

A No adjustment required.

B DR Revenue $60,000; CR Cost of sales $60,000.

C DR Revenue $80,000; CR Cost of sales $80,000.

D DR Revenue $100,000; CR Cost of sales $100,000.

(2 marks)

1.2 Which ONE of the following is a valid reason for excluding a subsidiary from consolidation under current International Financial Reporting Standards?

A The subsidiary has been acquired exclusively with a view to its subsequent disposal.

B The activities of the subsidiary are so dissimilar from those of the rest of the group that it would be misleading to include it in the consolidation.

C A formally documented decision has been made by the directors to wind down the activities of the subsidiary.

D The subsidiary operates in a hyper-inflationary environment.

(2 marks)

1.3 On 31 July 2007, AGR acquired 80% of the ordinary share capital of its subsidiary BLK. The book value of BLK's net assets at the date of acquisition was $1,300,000. This value included $300,000 in respect of certain specialised items of plant, which were bought on 31 July 2004. The plant is being depreciated on a straight line basis over six years with an assumption of nil residual value. No estimate of market value at the date of acquisition is available, but it would cost $700,000 to replace the plant at current prices.

Since 2005, BLK has been developing a specialised industrial process. Following registration of the patent and some coverage in the trade press, BLK received an offer for the patent of $150,000 in April 2007. The offer was rejected. BLK does not recognise the patent as an asset. AGR's directors think it probable that other processes developed by BLK have a market value, and they have made a broad estimate of $75,000 to cover such items which have not been capitalised by BLK.

Shortly before the acquisition of BLK took place, its directors had started a programme to rationalise production. The estimated cost of the programme was $250,000, but no provision for it was recognised in the entity's financial statements at 31 July 2007. The programme has continued and is now (November 2007) substantially complete.

Calculate the fair value of BLK's net assets that would be included in the consolidated balance sheet of AGR at 31 July 2007, assuming that there are no relevant issues other than those given above. If appropriate, explain your reasons for excluding any of the possible adjustments to fair value.

(4 marks)

1.4 LPD buys goods from its 75% owned subsidiary QPR. QPR earns a mark-up of 25% on such transactions. At the group's year end, 30 June 2007, LPD had not yet taken delivery of goods, at a sales value of $100,000, which were despatched by QPR on 29 June 2007.

At what amount would the goods in transit appear in the consolidated balance sheet of the LPD group at 30 June 2007?

A $60,000

B $75,000

C $80,000

D $100,000

(2 marks)

1.5 The initial measurement of financial liabilities should be at fair value. Explain the general valuation rule in IAS 39 *Financial Instruments: Recognition and Measurement* that should be applied to the subsequent measurement of financial liabilities, other than those specifically mentioned as exceptions.

(2 marks)

Section A continues on the next page

TURN OVER

1.6 On 1 September 2006, BLT held 60% of the ordinary share capital of its only subsidiary CMU. The consolidated equity of the group at that date was $576,600, of which $127,000 was attributable to the minority interest.

On 28 February 2007, exactly halfway through the financial year, BLT bought a further 20% of the ordinary share capital of CMU. In the year ended 31 August 2007 BLT's profits for the period were $98,970 and CMU's were $30,000. BLT paid a dividend of $40,000 on 1 July 2007. There were no other movements in equity. It can be assumed that profits accrue evenly throughout the year.

Prepare a consolidated statement of changes in equity for the BLT group for the year ended 31 August 2007.

(4 marks)

1.7 STB is preparing its consolidated cash flow statement for the year ended 31 October 2007. Its consolidated opening balance at net book value for property, plant and equipment was $207,000. During the year the STB group disposed of plant for proceeds of $8,500 that had cost $62,000 several years ago and which was fully written down at 1 November 2006. There were no other disposals. The depreciation charge for the year ended 31 October 2007 was $32,000. The consolidated closing book value for property, plant and equipment was $228,000.

What was the cash outflow in respect of purchases of property, plant and equipment for inclusion in the consolidated cash flow statement of STB group for the year ended 31 October 2007?

A $11,000

B $44,500

C $53,000

D $115,000

(2 marks)

1.8 Identify TWO conditions which must exist in order for hedge accounting to be permitted under IAS 39 *Financial Instruments: Recognition and Measurement*.

(2 marks)

(Total for Question One = 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

Earnings per share (EPS) is generally regarded as a key accounting ratio for use by investors and others. Like all accounting ratios, however, it has its limitations. You have been asked to make a brief presentation to CIMA students on the topic.

Required:

(a) Explain why EPS is regarded as so important that the IASB has issued an accounting standard on its calculation;

(2 marks)

(b) Explain the general limitations of the EPS accounting ratio and its specific limitations for investors who are comparing the performance of different entities.

(8 marks)

(Total for Question Two = 10 marks)

Section B continues on the next page

Question Three

The following information relates to the defined benefits pension scheme of BGA, a listed entity:

The present value of the scheme obligations at 1 November 2006 was $18,360,000, while the fair value of the scheme assets at that date was $17,770,000. During the financial year ended 31 October 2007, a total of $997,000 was paid into the scheme in contributions. Current service cost for the year was calculated at $1,655,000, and actual benefits paid were $1,860,300. The applicable interest cost for the year was 6·5% and the expected return on plan assets was 9·4%.

The present value of the scheme obligations at 31 October 2007 was calculated as $18,655,500, and the fair value of scheme assets at that date was $18,417,180.

BGA adopts the "10% corridor" criterion in IAS 19 *Employee Benefits* for determining the extent of recognition of actuarial gains and losses. The average remaining service life of the employees was 10 years. Net unrecognised actuarial losses on 1 November 2006 were $802,000.

Required:

(a) Calculate the actuarial gain or loss on BGA's pension scheme assets and liabilities for the year ended 31 October 2007.

(8 marks)

(b) Calculate the extent to which, if at all, actuarial gains or losses should be recognised in BGA's income statement for the year ended 31 October 2007, using the "10% corridor" criterion.

(2 marks)

(Total for Question Three = 10 marks)

Question Four

It is becoming increasingly common for listed entities to provide non-financial disclosures intended to inform stakeholders about the business's environmental policies, impacts and practices. Supporters of such voluntary disclosures argue that stakeholders have a right to be informed about environmental issues in this way. However, there are also arguments against this type of disclosure.

Required:

Identify and explain the principal arguments **against** voluntary disclosures by businesses of their environmental policies, impacts and practices.

(Total for Question Four = 10 marks)

(Total for Section B = 30 marks)

End of Section B. Section C starts on page 8.

SECTION C – 50 MARKS

[indicative time for answering this Section is 90 minutes]

ANSWER TWO QUESTIONS OUT OF THREE

Question Five

The directors of DPC, a listed entity, have been approached by three out of the five shareholders of PPS, an unlisted competitor. The PPS shareholders are nearing retirement age, and would like to realise their investment in the business. The two remaining shareholders do not object, but would like to retain between them at least a significant influence over the business.

The directors of DPC are currently concerned about the threat of a takeover bid for DPC itself. Although they would like to acquire an interest in PPS as it would help them to increase DPC's market share, they do not want to take any action that would adversely affect their financial statements and certain key accounting ratios (EPS, gearing [calculated as debt/equity], and non-current asset turnover).

There are two possibilities for consideration:

1. DPC could purchase 40% of the ordinary shares of PPS, giving it significant influence, but not control. The cost of this would be $3·5 million, to be settled in cash. DPC would pay $1 million out of its cash resources and would increase its existing long-term borrowings for the balance.

2. DPC could purchase 60% of the ordinary shares of PPS, giving it control. The cost of this would be $6 million, to be settled in cash. DPC would pay $3 million out of its cash resources, and would increase its existing long-term borrowings for the balance.

The purchase would take place on the first day of the new financial year, 1 January 2008. Projected summary income statements for the 2008 financial year, and projected summary balance sheets at 31 December 2008 are shown below. The DPC figures are consolidated to include its existing 100% held subsidiaries (it currently holds no interests in associates). The projected financial statements for PPS are for that entity alone.

Summary projected income statements for the year ended 31 December 2008

	DPC consolidated Projected: 2008 $000	*PPS entity Projected: 2008 $000*
Revenue	60,300	10,200
All expenses including income tax	(55,300)	(9,500)
Profit for the period attributable to equity holders	5,000	700

Summary projected balance sheets at 31 December 2008

	DPC consolidated Projected: 2008 $000	*PPS entity Projected: 2008 $000*	*Notes*
Non-current assets	50,400	9,800	2
Current assets	82,000	16,000	
	132,400	25,800	
Equity	31,400	4,000	3 & 4
Long-term liabilities	10,000	9,300	
Current liabilities	91,000	12,500	
	132,400	25,800	

Notes:

1. DPC's consolidated projected financial statements at 31 December 2008 do not take into account the proposed acquisition of PPS.

2. DPC's non-current asset figure includes goodwill on acquisition of various subsidiaries.

3. PPS's equity comprises 100,000 ordinary shares of $1 each, $3,200,000 of retained earnings brought forward on 1 January 2008 and $700,000 profit for the period.

4. DPC will have 10 million ordinary shares of $1 each on 1 January 2008. No issues of shares will be made during 2008.

Required:

(a) Prepare draft projected financial statements for the DPC group for the year ending 31 December 2008 under each of the following assumptions:

(i) DPC acquires 40% of the ordinary shares of PPS on 1 January 2008;

(ii) DPC acquires 60% of the ordinary shares of PPS on 1 January 2008.

It can be assumed that no impairment of either investment would have taken place by 31 December 2008.

(14 marks)

(b) Calculate EPS, gearing and non-current asset turnover ratios based on the draft projected 31 December 2008 financial statements for:

(i) DPC and its existing subsidiaries;

(ii) DPC including the acquisition of an associate interest in PPS;

(iii) DPC including the acquisition of a subsidiary interest in PPS.

(6 marks)

(c) Discuss the differences in the accounting ratios under the different scenarios, identifying reasons for the most significant differences.

(5 marks)

(Total for Question Five = 25 marks)

TURN OVER

Question Six

AX, a listed entity, is planning to acquire several smaller entities. In order to raise the cash for its programme of acquisitions, it has recently sold part of its stake in a subsidiary, CY, and has raised $10 million in a bond issue.

Summarised balance sheets for AX, CY and the other member of the group, EZ, at 31 October 2007 are given below:

	AX *$000*	*CY* *$000*	*EZ* *$000*
ASSETS			
Non-current assets:			
Property, plant and equipment	20,000	8,900	5,000
Investment in subsidiaries (notes 1 & 2)	15,500	-	-
	35,500	8,900	5,000
Current assets	34,500	9,500	4,700
	70,000	18,400	9,700
EQUITY AND LIABILITIES			
Equity:			
Called up share capital ($1 shares)	20,000	4,000	3,000
Retained earnings	18,000	7,000	3,000
	38,000	11,000	6,000
Non-current liabilities	-	2,400	1,000
Current liabilities	18,000	5,000	2,700
Suspense account (notes 1 & 3)	14,000	-	-
	70,000	18,400	9,700

Notes:

1. The investment in 80% of CY's ordinary share capital was purchased several years ago for $8 million when CY's retained earnings were $3·5 million. There has been no change since then in the amount of CY's share capital, and goodwill has remained unimpaired. No adjustments to fair value of CY's net assets were made either at acquisition or subsequently.

On 31 October 2007 AX sold one quarter of its shareholding in CY to an unconnected party for $4 million. This amount has been debited to cash and credited to the suspense account. It is estimated that a tax liability of $400,000 will arise in respect of the profit on disposal of the investment; no provision for this liability has been made in the balance sheet above.

2. The investment in 100% of EZ's ordinary share capital was purchased on 30 April 2005 for $7·5 million when EZ's retained earnings were $1·5 million. Goodwill has remained unimpaired since the date of acquisition.

Upon acquisition a revaluation exercise was carried out. Plant and equipment in EZ with a book value of $1 million was revalued to $1·5 million. There were no other adjustments in respect of fair value. The revaluation is treated as a consolidation adjustment only: EZ continues to recognise non-current assets at depreciated historic cost. The remaining useful life of the plant and equipment at 30 April 2005 was estimated to be five years, of which thirty months had elapsed by 31 October 2007.

3. AX issued $10 million of 5% convertible bonds on 31 October 2007. The bonds were issued in units of $1,000 and are repayable on 31 October 2010. However, each bond is convertible into 250 ordinary shares at any time until maturity at the option of the bondholder. The market rate for similar, non-convertible, bonds is 7%. It can be assumed that there were no issue costs. The $10 million raised by the issue was debited to cash and credited to the suspense account.

Required:

(a) Explain the appropriate accounting treatment to record the issue of convertible bonds, discussing the reasons for the approach that is adopted by International Financial Reporting Standards for this type of financial instrument.

(5 marks)

(b) Prepare the consolidated balance sheet for the AX group at 31 October 2007.

(20 marks)

(Total for Question Six = 25 marks)

Section C continues on the next page

TURN OVER

Question Seven

DAS, a listed entity, is engaged in house-building activities. It was listed a little over two years ago and it prepares its financial statements in compliance with International Financial Reporting Standards.

A business associate of yours is thinking about applying for a job as human resource manager at DAS. The job advertisement promises a “great future in a rapidly expanding business”. She was made redundant when her last employer went into liquidation, and she is looking for a new role with a more stable and prosperous employer. She has obtained DAS’s recently published financial statements for the year ended 31 August 2007 and would like your advice on the entity’s prospects for the future.

DAS provides several potentially useful voluntary disclosures about the nature of its business and its current work in progress. In the year ended 31 August 2006 DAS sold 1,080 new houses. During the financial year ended 31 August 2007, a major part of the entity’s efforts were directed towards the development for housing on the site of a former hospital. This was DAS’s largest project to date. By the year end most of the houses on site were nearly complete, and a few were ready for sale. The site contains 225 houses, which are expected to sell for between $425,000 and $600,000 each. DAS’s directors consider that the development scheme has been successful; by the year end 100 of the available houses had been reserved by buyers who paid a 10% deposit. None of the hospital site house transactions had been completed by 31 August 2007, although the Chief Executive’s report noted that there were several completions during September and October 2007. DAS sold 675 other houses during the year ended 31 August 2007.

DAS’s balance sheet at 31 August 2007 and an income statement for the year then ended, together with comparatives, follow:

DAS: Balance sheet at 31 August 2007

	2007		*2006*	
	$ million	*$ million*	*$ million*	*$ million*
ASSETS				
Non-current assets:				
Property, plant and equipment		9·3		9·8
Current assets:				
Inventories	270·5		275·0	
Trade and other receivables	3·2		3·7	
Cash	-		2·8	
		273·7		281·5
		283·0		291·3
EQUITY AND LIABILITIES				
Equity				
Called up share capital ($1 shares)	8·2		8·2	
Other reserves	16·3		16·3	
Retained earnings	61·9		54·7	
		86·4		79·2
Non-current liabilities:				
Long-term borrowings		114·7		112·0
Current liabilities:				
Loans and borrowings	52·6		75·4	
Trade and other payables	29·3		24·7	
		81·9		100·1
		283·0		291·3

DAS: Income statement for the year ended 31 August 2007

	2007	*2006*
	$ million	*$ million*
Revenue	157·9	243·0
Cost of sales	(126·5)	(192·7)
Gross profit	31·4	50·3
Expenses	(9·2)	(8·6)
Finance costs	(12·2)	(13·4)
Profit before tax	10·0	28·3
Income tax expense	(2·8)	(8·9)
Profit for the period	7·2	19·4

Notes:

1. DAS's policy is to recognise revenue from the sale of houses upon legal completion of the transaction.

2. Most of the house-building work is undertaken by sub-contractors; DAS retains only a small direct labour force. Payments to sub-contractors are included as part of property under construction in inventories until such time as the houses are sold.

3. Inventories comprise the following:

	2007	*2006*
	$ million	*$ million*
Land held for development	130·0	210·0
Property under construction	140·5	65·0
	270·5	275·0

4. The statement of changes in equity (not given above) shows that no dividend was paid in the period of a little over two years since DAS was listed.

5. Deposits paid by buyers are included in trade and other payables.

6. Economic conditions are generally buoyant and house prices during 2006 and 2007 have risen at a rate significantly in excess of the general rate of inflation. Bank interest rates in respect of low risk lending have been running at between 5% and 6% throughout the two year period covered by the financial statements shown above.

Required:

Write a report to your business associate that analyses and interprets the information given above. The report should explain the extent to which DAS can be considered to meet her requirements for a "stable and prosperous" employer.

Up to eight marks are available for the calculation and explanation of **relevant** accounting ratios.

(Total for Question Seven = 25 marks)

(Total for Section C = 50 marks)

End of Question Paper

Maths Tables and Formulae are on pages 15-17

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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

November 2007

Tuesday Afternoon Session