CIMA

Financial Pillar

F1 – Financial Operations

27 May 2010 – Thursday Morning 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).
ALL answers must be written in the answer book. Answers written on the question paper will **not** be submitted for marking.
You should show all working as marks are available for the method you use.
ALL QUESTIONS ARE COMPULSORY
Section A comprises of 10 sub-questions and is on page 3 to 6.
Section B comprises of 6 sub-questions and is on pages 8 to 11.
Section C comprises of 2 questions and is on pages 12 to 15.
The country 'Tax Regime' for the paper is provided on page 2. Maths tables and formulae are provided on pages 17 and 18.
The list of verbs as published in the syllabus is given for reference on page 19.
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 the questions you have answered.

F1 – Financial Operations

COUNTRY X - TAX REGIME FOR USE THROUGHOUT THE EXAMINATION PAPER

Relevant Tax Rules for Years Ended 31 March 2007 to 2010

Corporate Profits

Unless otherwise specified, only the following rules for taxation of corporate profits will be relevant, other taxes can be ignored:

- Accounting rules on recognition and measurement are followed for tax purposes.
- All expenses other than depreciation, amortisation, entertaining, taxes paid to other public bodies and donations to political parties are tax deductible.
- Tax depreciation is deductible as follows: 50% of additions to Property, Plant and Equipment in the accounting period in which they are recorded; 25% per year of the written-down value (i.e. cost minus previous allowances) in subsequent accounting periods except that in which the asset is disposed of. No tax depreciation is allowed on land.
- The corporate tax on profits is at a rate of 25%.
- Tax losses can be carried forward to offset against future taxable profits from the same business.

Value Added Tax

Country X has a VAT system which allows entities to reclaim input tax paid.
In country X the VAT rates are:

Zero rated	0%
Standard rated	15%

SECTION A – 20 MARKS

[Note: The indicative time for answering this section is 36 minutes]

ANSWER *ALL* TEN SUB-QUESTIONS IN THIS SECTION

Instructions for answering Section A:

The answers to the ten 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.

Question One

1.1 An ideal tax system should conform to certain principles. Which one of the following statements ***is not*** generally regarded as a principle of an ideal tax?

A It should be fair to different individuals and should reflect a person's ability to pay.

B It should not be arbitrary, it should be certain.

C It should raise as much money as possible for the government.

D It should be convenient in terms of timing and payment.

(2 marks)

1.2 Which **one** of the following could be said to be a progressive tax?

A Property sales tax at 1% of the selling price of all properties sold.

B Value added tax at a rate of 0%, 10% or 15% depending on the type of goods or services provided.

C Corporate wealth tax at 2% of total net assets up to $10 million then at 0.5% on total net assets greater than $10 million.

D Personal income tax at 10% on earnings up to $10,000, then at 15% from $10,001 up to $100,000 and 25% over $100,000.

(2 marks)

TURN OVER

1.3 An item of equipment cost $60,000 on 1 April 2007. The equipment is depreciated at 20% per annum on a reducing balance basis.

The amount of deferred tax relating to this asset that should be recognised in the statement of financial position as at 31 March 2010 is:

A $1,781

B $3,461

C $3,975

D $13,845

(2 marks)

1.4 The International Accounting Standards Board's (IASB) *Framework for the Preparation and Presentation of Financial Statements (Framework)* is the IASB's conceptual framework. Which one of the following does the Framework not cover?

A The format of financial statements

B The objective of financial statements

C Concepts of capital maintenance

D The elements of financial statements

(2 marks)

1.5 The IASB's Framework identifies reliability as one of the four qualitative characteristics of financial information. Which one of the following is not an element of reliability?

A Information should be timely

B Information should be free from material error

C Information should be free from bias

D Information must be complete

(2 marks)

1.6 OC signed a contract to provide office cleaning services for an entity for a period of one year from 1 October 2009 for a fee of $500 per month.

The contract required the entity to make one payment to OC covering all twelve months' service in advance. The contract cost to OC was estimated at $300 per month for wages, materials and administration costs.

OC received $6,000 on 1 October 2009.

How much profit/loss should OC recognise in its statement of comprehensive income for the year ended 31 March 2010?

A $600 loss

B $1,200 profit

C $2,400 profit

D $4,200 profit

(2 marks)

1.7 Which **one** of the following could be classified as deferred development expenditure in M's statement of financial position as at 31 March 2010 according to IAS 38 *Intangible assets*?

A $120,000 spent on developing a prototype and testing a new type of propulsion system for trains. The project needs further work on it as the propulsion system is currently not viable.

B A payment of $50,000 to a local university's engineering faculty to research new environmentally friendly building techniques.

C $35,000 spent on consumer testing a new type of electric bicycle. The project is near completion and the product will probably be launched in the next twelve months. As this project is the first of its kind for M it is expected to make a loss.

D $65,000 spent on developing a special type of new packaging for a new energy efficient light bulb. The packaging is expected to be used by M for many years and is expected to reduce M's distribution costs by $35,000 a year.

(2 marks)

1.8 A finance lease for 6 years has an annual payment in arrears of $24,000. The fair value of the lease at inception was $106,000. Using the sum of digits method, the current liability for the lease at the end of year 2 is:

	$000
A	58.0
B	77.9
C	86.1
D	115.9

(2 marks)

TURN OVER

1.9 PQ has ceased operations overseas in the current accounting period. This resulted in the closure of a number of small retail outlets.

Which one of the following costs would be ***excluded*** from the loss on discontinued operations?

A Loss on the disposal of the retail outlets

B Redundancy costs for overseas staff

C Cost of restructuring head office as a result of closing the overseas operations

D Trading losses of the overseas retail outlets up to the date of closure

(2 marks)

1.10 The following balances were extracted from N's financial statements:

Statement of financial position (extract)

	As at 31 December 2009	*As at 31 December 2008*
	$000	*$000*
Non Current liabilities		
Deferred tax	38	27
Current Liabilities		
Current tax payable	119	106

Statement of comprehensive income for the year ended 31 December 2009 (extract)

	$000
Income tax expense	122

The amount of tax paid that should be included in N's statement of cash flows for the year ended 31 December 2009 is:

	$000
A	98
B	109
C	122
D	241

(2 marks)

(Total for Section A = 20 marks)

Reminder

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

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

End of Section A

Section B starts on the next page

TURN OVER

SECTION B – 30 MARKS

[Note: The indicative time for answering this section is 54 minutes]

ANSWER *ALL* SIX SUB-QUESTIONS IN THIS SECTION – 5 MARKS EACH

Question Two

(a) Cee has reduced her tax bill by taking advice from a tax expert and investing her surplus cash in government securities. The income from government securities is free of tax.

Gee works as a night security guard for a local entity and also has a job working in a supermarket during the day. Gee has reduced his tax bill by declaring only his day job income on his annual tax return.

Required:

Explain the difference between tax evasion and tax avoidance, using Cee and Gee to illustrate your answer.

(Total for sub-question (a) = 5 marks)

(b) W is a business in Country X, that uses locally grown fruit and vegetables to make country wines. During 2009 W paid $30,000 plus VAT for the ingredients and other running costs.

When the wine is bottled W pays $1 tax per bottle to the tax authority. During 2009 W produced 10,000 bottles.

W sold all the wine to retailers for an average price of $8.05 per bottle, including VAT at standard rate.

Required:

(i) Explain the difference between unit taxes and ad valorem taxes, using the scenario above to illustrate your answer.

(3 marks)

(ii) Calculate the amounts of indirect tax payable by W for the year ended 31 December 2009.

(2 marks)

(Total for sub-question (b) = 5 marks)

(c) H, an entity, carries out business in Country X, buying and selling goods. The senior management of H meet regularly in the entity's offices in Country X.

H owns 100% of S, an entity that buys and sells goods in Country Y. The senior management of S meet regularly in the entity's offices in Country Y. S reported a profit of $500,000 for 2009 and received an income tax bill from Country Y's tax authority for $100,000.

S has declared a dividend of $200,000 and is required to deduct tax at 10% before remitting cash to overseas investors, such as H.

Assume Country X and Country Y have a double tax agreement based on the Organisation for Economic Co-Operation and Development (OECD) – Model Tax Convention.

Required:

Explain the terms "competent jurisdiction" and "withholding tax". Illustrate how each relates to the H group.

(Total for sub-question (c) = 5 marks)

(d) AB's profits have suffered due to a slow-down in the economy of the country in which it operates. AB's draft financial statements show revenue of $35 million and profit before tax of $4 million for the year ended 31 December 2009.

AB's external auditors have identified a significant quantity of inventory that is either obsolete or seriously impaired in value. The audit senior has calculated the inventory write-down of $1 million. AB's directors have been asked by the audit senior to record this in the financial statements for the year ended 31 December 2009.

AB's directors are refusing to write-down the inventory at 31 December 2009, claiming that they were not aware of any problems at that date and furthermore do not agree with the auditor that there is a problem now. The directors are proposing to carry out a stock-take at 31 May 2010 and to calculate their own inventory adjustment, if required. If necessary the newly calculated figure will be used to adjust inventory values in the year to 31 December 2010.

Required:

(i) Explain the objective of an external audit.

(2 marks)

(ii) Assuming that AB's directors continue to refuse to amend the financial statements, explain the type of audit report that would be appropriate for the auditors to issue.

(3 marks)

(Total for sub-question (d) = 5 marks)

TURN OVER

(e) On 1 April 2008 CC started work on a three year construction contract. The fixed value of the contract is $63 million.

During the year ended 31 March 2009 CC's contract costs escalated.

The value of work done and the cash received for the two years to 31 March 2010 are summarised below:

	Year to 31 March 2010	*Year to 31 March 2009*
Percentage of work completed in year	40%	35%
Cost incurred in year	$26 million	$18 million
Estimated further costs after the year end to complete project	$20 million	$36 million
Progress payments received in the year	$22 million	$15 million
Amounts recognised by CC in its statement of comprehensive income for the year ended 31 March 2009		
Revenue		$22 million
Cost of sales		$18 million

Required:

Calculate the amounts to be recorded for the above contract in CC's statement of comprehensive income for the year ended 31 March 2010 and in the statement of financial position at that date.

Show all calculated figures to the nearest $ million.

(Total for sub-question (e) = 5 marks)

(f) AD operates five factories in different locations in a country. Each factory produces a different product line and each product line is treated as a separate segment under IFRS 8 *Operating Segments*.

One factory, producing a range of shoes, had an increased annual loss of an estimated $2,000,000 for the year to 31 March 2010. On 1 March 2010 AD's management decided to close the factory and cease the sale of it's range of shoes. Closure costs, net of any gains on disposal of the assets, are estimated as $150,000.

On 31 March 2010 AD's management is still negotiating payment terms with the shoe factory workforce and has not agreed an actual closure date. AD has not yet attempted to find a buyer for the factory or its assets.

AD's management wants to completely exclude the shoe factory results from AD's financial statements for the year ended 31 March 2010. They argue that as the shoe factory is about to be closed or sold, it would mislead investors to include the results of the shoe factory in the results for the year.

Required:

Assume that you are a trainee accountant with AD.

AD's finance director has asked you to draft a briefing note that she can use to prepare a response to AD's management.

Your briefing note should explain how AD should treat the shoe factory in its financial statements for the year ended 31 March 2010.

You should make reference to any relevant International Financial Reporting Standards and to CIMA's Code of Ethics for Professional Accountants.

(Total for sub-question (f) = 5 marks)

(Total for Section B = 30 marks)

End of Section B

Section C starts on page 12

TURN OVER

SECTION C – 50 MARKS

[Note: The indicative time for this section is 90 minutes]

ANSWER *BOTH* QUESTIONS FROM THIS SECTION – 25 MARKS EACH

Question Three

EZ trial balance at 31 March 2010 is shown below:

	Notes	*$000*	*$000*
Administrative expenses		86	
Cash and cash equivalents		22	
Cost of goods sold		418	
Distribution costs		69	
Equity dividend paid	(v)	92	
Inventory at 31 March 2010		112	
Land market value – 31 March 2009	(i)	700	
Lease	(ix)	15	
Long term borrowings	(vii)		250
Equity Shares $1 each, fully paid at 31 March 2010	(vi)		600
Property, plant and equipment – at cost 31 March 2009	(iii)	480	
Provision for deferred tax at 31 March 2009	(ii)		30
Provision for property, plant and equipment depreciation at 31 March 2009	(iv)		144
Retained earnings at 31 March 2009			181
Revaluation reserve at 31 March 2009			10
Revenue			720
Share premium at 31 March 2010	(vi)		300
Suspense	(iii)		2
Trade payables			32
Trade receivables	(viii)	275	
		2,269	2,269

Additional information provided:

(i) Land is carried in the financial statements at market value. The market value of the land at 31 March 2010 was $675,000. There were no purchases or sales of land during the year.

(ii) The tax due for the year ended 31 March 2010 is estimated at $18,000. Deferred tax is estimated to decrease by $10,000.

(iii) During the year EZ disposed of old equipment for $2,000. No entry has been made in the accounts for this transaction except to record the cash received in the cash book and in the suspense account. The original cost of the equipment sold was $37,000 and its book value at 31 March 2009 was $7,000.

(iv) Property, plant and equipment is depreciated at 10% per year straight line. Depreciation of property, plant and equipment is considered to be part of cost of sales. EZ's policy is to charge a full year's depreciation in the year of acquisition and no depreciation in the year of disposal.

(v) During the year EZ paid a final dividend of $92,000 for the year ended 31 March 2009.

(vi) EZ issued 200,000 equity shares on 30 September 2009 at a premium of 50%.

(vii) Long term borrowings consist of a loan taken out on 1 April 2009 at 4% interest per year. No loan interest has been paid at 31 March 2010.

(viii) On 22 April 2010 EZ discovered that ZZZ, its largest customer, had gone into liquidation. EZ has been informed that it is very unlikely to receive any of the $125,000 balance outstanding at 31 March 2010.

(ix) On 1 April 2009 EZ acquired additional vehicles on a 2½ year (30 months) operating lease. The lease included an initial 6 months rent-free period as an incentive to sign the lease. The lease payments were $2,500 per month commencing on 1October 2009.

Required:

Prepare EZ's statement of comprehensive income and statement of changes in equity for the year to 31 March 2010 and a statement of financial position at that date, in a form suitable for presentation to the shareholders and in accordance with the requirements of International Financial Reporting Standards.

Notes to the financial statements are not required, but all workings must be clearly shown. Do **not** prepare a statement of accounting policies.

(Total for Question Three = 25 marks)

Section C continues on page 14

TURN OVER

Question Four

AX holds shares in two other entities, AS and AA.

AX purchased 100% of AS shares on 1 April 2009 for $740,000, when the fair value was $75,000 more than book value. The excess of fair value over book value was attributed to land held by AS.

At 1 April 2009 the retained earnings of AS showed a debit balance of $72,000.

AX purchased 120,000 ordinary shares in AA on 1 April 2009 for $145,000 when AA's retained earnings were $49,000. AX is able to exercise significant influence over all aspects of AA's strategic and operational decisions. At 1 April 2009 the fair values of AA's assets were the same as their net book value.

The draft summarised financial statements for the three entities as at 31 March 2010 are given below.

Draft Summarised Statement of Financial Position as at 31 March 2010

	AX		AS		AA	
	$000	$000	$000	$000	$000	$000
Non-current Assets						
Property, plant and equipment	1,120		700		740	
Investments:						
600,000 Ordinary shares in AS at cost	740		-		-	
120,000 Ordinary shares in AA at cost	145		-		-	
		2,005		700		740
Current Assets						
Inventory	205		30		14	
Trade receivables	350		46		30	
Cash and cash equivalents	30		-		11	
		585		76		55
Total Assets		2,590		776		795
Equity and Liabilities						
Equity shares of $1 each		1,500		600		550
Retained earnings		518		15		100
		2,018		615		650
Non-current liabilities						
Borrowings	360		80		109	
Deferred tax	120		16		10	
		480		96		119
Current liabilities						
Trade payables	92		29		15	
Tax (see additional information (i))	-		16		11	
Bank overdraft	-		20		-	
		92		65		26
Total Equity and Liabilities		2,590		776		795

Summarised Statement of Comprehensive Income for the year ended 31 March 2010

		AX		AS		AA
		$000		$000		$000
Revenue		820		285		147
Cost of sales		(406)		(119)		(52)
		414		166		95
Administrative expenses	(84)		(36)		(14)	
Distribution costs	(48)		(22)		(11)	
		(132)		(58)		(25)
Finance cost		(18)		(5)		(8)
		264		103		62
Income Tax (see additional information (i))				(16)		(11)
Profit for the year				87		51

Additional information:

(i) AX has not yet calculated its tax charge for the year to 31 March 2010. AX is deemed resident in Country X for tax purposes. AX's cost of sales includes a depreciation charge of $31,000 for property, plant and equipment. Included in administrative expenses are entertaining expenses of $4,000. AX's property, plant and equipment qualified for tax depreciation allowances of $49,000 for the year ended 31 March 2010.

(ii) In the year since acquisition AS sold goods for $55,000 to AX of which $25,000 remained in AX's closing inventory at 31 March 2010. AS uses a mark up of 25% on cost. All invoices from AS for the goods had been paid by the year end.

(iii) No dividends are proposed by any of the entities.

Required:

(a) Calculate the estimated amount of corporate income tax that AX will be due to pay for the year ended 31 March 2010 and any required adjustment to the provision for deferred tax at that date.

(5 marks)

(b) Prepare a Consolidated Statement of Comprehensive Income for the AX Group of entities for the year ended 31 March 2010 and a Consolidated Statement of Financial Position as at that date.

Notes to the financial statements are not required but all workings must be shown.

(20 marks)

(Total for Question Four = 25 marks)

End of Question Paper

Maths Tables and Formulae are on Pages 17 and 18

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	0.705	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 (n)	Interest rates (r)									
	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 (n)	Interest rates (r)									
	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, payable or receivable in perpetuity, commencing in one year, discounted at *r*% per annum:

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

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
Level 1 - KNOWLEDGE		
What you are expected to know.	List	Make a list of
	State	Express, fully or clearly, the details/facts of
	Define	Give the exact meaning of
Level 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 or purpose of
	Identify	Recognise, establish or select after consideration
	Illustrate	Use an example to describe or explain something
Level 3 - APPLICATION		
How you are expected to apply your knowledge.	Apply	Put to practical use
	Calculate	Ascertain or reckon mathematically
	Demonstrate	Prove with certainty or to exhibit by practical means
	Prepare	Make or get ready for use
	Reconcile	Make or prove consistent/compatible
	Solve	Find an answer to
	Tabulate	Arrange in a table
Level 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	Build up or compile
	Discuss	Examine in detail by argument
	Interpret	Translate into intelligible or familiar terms
	Prioritise	Place in order of priority or sequence for action
	Produce	Create or bring into existence
Level 5 - EVALUATION		
How are you expected to use your learning to evaluate, make decisions or recommendations.	Advise	Counsel, inform or notify
	Evaluate	Appraise or assess the value of
	Recommend	Advise on a course of action

Financial Pillar

Operational Level Paper

F1 – Financial Operations

May 2010

Thursday Morning Session