

**CIMA FINAL ASSESSMENT**

# **Financial Management**

**November 2011**

**Time allowed**

Reading and planning: 20 minutes

Writing: 3 hours

All SEVEN questions are compulsory and MUST be attempted.

**Maths tables and formulae are on pages 3 – 5**

**Do NOT open this paper until instructed by the supervisor.**

**During reading and planning time only the question paper may be annotated. You must NOT write in your answer booklet until instructed by the supervisor.**

**This question paper must not be removed from the examination hall.**

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**Paper F2**

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## FORMULAE AND TABLES

### Present value table

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

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	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 (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	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

This table shows the 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	4.793	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:

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

### 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:

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

## SECTION A

### All FIVE questions are compulsory and must be attempted

#### QUESTION 1

The board of directors of Hugh have calculated earnings per share for the year ended 31 October 20X5 to be \$0.80. The EPS has been calculated based on profit of \$4.8 million and 6,000,000 ordinary shares.

Investigations have revealed the following transactions took place during the year:

- (i) The directors sold, on 1 November 20X4, a property to a company, Highball, for \$4.5 million. Hugh has signed an unconditional agreement to repurchase the property after 4 years for a fixed amount of \$5.5 million. The interest rate implicit in the agreement is 5% per annum. The property has been derecognised from the statement of financial position, and a profit on sale of \$500,000 has been shown in the income statement. Depreciation on the property is charged at 5% per annum on the carrying value of the property.
- (ii) Hugh had made a 1 for 4 rights issue on 30 September 20X5. The cost of the shares was \$1.60 per share, and the market price was \$2.00 per share before the rights issue. The directors ignored this transaction because they felt that, as it occurred only 1 month prior to the year-end, they had not had sufficient time to use the funds to generate additional profit.

#### Required:

- (a) Briefly explain how the sale of the property should have been accounted for in accordance with IFRS. (3 marks)
- (b) Briefly explain how the rights issue should have been dealt with in the calculation of earnings per share. (2 marks)
- (c) Calculate the corrected earnings per share for the year ended 31 October 20X5. (5 marks)

(Total: 10 marks)

## QUESTION 2

Mitchell are currently finalising their financial statements for the year ended 30 September 20X6 and have asked for your assistance in relation to the following outstanding matter:

On 1 October 20X5 Mitchell issued \$30 million 6% convertible loan stock on the following terms:

- The issue price was at a discount of 5%.
- The loan stock is convertible into the entity's equity shares at the option of the stockholders five years after the date of issue (30 September 20Y0) on the basis of 25 shares for each \$100 of loan stock. Alternatively it will be redeemed at par.

If Mitchell had issued similar loan stock without conversion rights then it would have to pay an interest rate of 9% on the loan stock.

### Required:

- (a) Explain how Mitchell should deal with the initial recognition of the convertible loan stock in their financial statements and their subsequent measurement. (5 marks)
- (b) Provide extracts from the income statement and statement of financial position in respect of the transaction for the year ended 30 September 20X6. (5 marks)

**(Total: 10 marks)**

## QUESTION 3

Grafton adopts the corridor approach according to IAS 19 Employee Benefits for its defined benefit pension scheme. It is preparing its financial statements for the year to 31 December 20X8 and provides the following information.

Statement of financial position as at	31 Dec 20X7	31 Dec 20X8
	\$m	\$m
Plan assets	200	226
Plan obligations	340	360

The unrecognised actuarial loss at 31 December 20X7 was \$100m. The average service life of employees is 10 years.

The following information is provided in respect of Grafton's defined benefit pension fund for the year to 31 December 20X8:

	\$m
Current service cost	18
Interest cost	8%
Contributions	20
Benefits paid	24
Return on assets	15%

**Required:**

- (a) Determine the charge to the income statement for Grafton for the year to 31 December 20X8 in respect of its defined benefit pension fund. (7 marks)
- (b) Outline and briefly explain the options that Grafton has in terms of accounting for an actuarial gain or loss in accordance with IAS 19 Employee Benefits. (3 marks)

(Total: 10 marks)

**QUESTION 4**

**Required:**

- (a) Describe the principles behind the Operating and Financial Review discussing whether the review should be mandatory or whether directors should be free to use their judgement as to what should be included in such a review. (7 marks)
- (b) Many companies achieve growth through acquisition. When appraising potential acquisition targets, explain the limitations of using financial statements alone. (3 marks)

(Total: 10 marks)

**QUESTION 5**

Rod is a company whose functional and presentational currency is the \$. Jayne, a subsidiary of Rod, has a functional currency of the Pesto (P). The income statements of Rod and Jayne for the year ended 30 September 20X7 are given below:

	<i>Rod</i>	<i>Jayne</i>
	\$m	Pm
Revenue (Note 1)	500	800
Cost of sales	(200)	(300)
	—	—
Gross profit	300	500
Other operating expenses	(150)	(260)
	—	—
Profit from operations	150	240
Finance costs	(60)	(80)
	—	—
Profit before tax	90	160
Income tax expense	(40)	(56)
	—	—
Profit for the period	50	104
	—	—



**Notes:**

- (1) Rod had acquired 75% of the equity shares of Jayne on 1 October 20X6 for P250 million when Jayne’s net assets had a book value of P264 million. At this time it was determined that some property had a fair value of P40 million in excess of its carrying value. The property had a remaining life of 20 years at this time. Depreciation is charged to operating expenses.
- (2) During the year Jayne sold P48m of goods to Rod at a margin of 25%. As the reporting date, Rod still held one third of these goods in inventory.
- (3) The exchange rate for the Pesto to the Dollar was as follows:
 

	P: \$1
1 October 20X6	2.2
30 September 20X7	1.8
Average rate during the year ended 30 September 20X7	2.0
- (4) Rod values NCI’s using the proportion of net assets method.
- (5) During the year, Rod had borrowed 100m Crowns from an overseas financial institution when the exchange rate was 4 Crowns : \$1. Rod has correctly accounted for the interest on this loan. However, at the reporting date the loan remains translated at the historic rate. At 30 September 20X7, the exchange rate was 5 Crowns : \$1.

**Required:**

**Prepare the consolidated income statement of the Rod Group for the year ended 30 September 20X7.**

**You should compute all figures to the nearest \$100,000.**

**(Note: Consolidated other comprehensive income is NOT required).**

**(10 marks)**

## SECTION B

### **BOTH questions are compulsory and must be attempted**

#### QUESTION 6

Rainbow is a listed entity supplying paints and wallpapers to retailers who then sell directly to the public. With recent interest in home improvements growing, the business has been surviving the worsening economic conditions and revenue has been steadily increasing.

Rainbow's shareholders include the original founders of the company, Jane and Bill. They both continue to own 30% each of the company and are in regular dialogue with the CEO and CFO. The remaining shares are spread amongst a number of smaller shareholders.

Jane and Bill have historically been averse to increasing gearing levels, measured as debt divided by equity, in excess of 70%. They believe that finance providers would view the entity unfavourably should gearing rise above this figure. Currently the majority of debt finance is raised from bank loans and the remainder from short-term bank overdrafts used to manage working capital fluctuations.

The CFO has set some targets for the financial year ended 30 September 20X9 and the subsequent 3 years to monitor Rainbow's performance in the recession. The key targets are as follows:

- Return on capital employed: above 6%
- Gross profit margin: above 22%
- Net profit margin: above 18%
- Gearing (long-term and short-term debt as a percentage of equity): below 70%

The draft financial statements for the year ended 30 September 20X9 include the following figures:

	\$
Revenue	43,560,000
Gross profit	12,334,500
Profit before interest	9,950,440
Interest	1,050,000
Equity	69,558,750
Debt (long + short term)	45,589,650

The key ratios, based on the draft financial statements, are as follows:

Return on capital employed	8.6%
Gross profit margin	28.3%
Net profit margin	20.4%
Gearing	65.5%

**Additional information:**

- (1) Rainbow has entered into an agreement in the current year with certain retailers that states that paints and wallpapers may be returned to Rainbow if they are not sold within 90 days. This has helped to improve sales (revenue in prior year: \$35.7m) and Rainbow's creative directors have been successful to date in designing popular ranges which have in the main sold quickly. The retailers are permitted to display the Rainbow range in their advertising material but it must clearly state that the range is a Rainbow product and is available for purchase at numerous retailers.
- (2) Rainbow records sales when goods are initially delivered to the retailer. The value of goods sold between 1 July 20X9 and 30 September 20X9 and still held by the retailer is \$2.34m and the relevant cost of the items is \$1.1m.
- (3) Rainbow sold an item of plant to Finance Co on 30 September 20X9 for \$10m. Its book value at that date was \$8.76m. Rainbow continues to use the plant in its manufacturing process and has the option to repurchase the plant in 3 years time for \$11.25m. Its market value is expected to be \$13m in 3 years time. The profit on disposal was recognised in cost of sales for the year ended 30 September 20X9.
- (4) Rainbow depreciates plant held at year end at 10% per annum on original cost and charges the depreciation to cost of sales. This particular item of plant was originally purchased for \$11.6m.
- (5) \$10 million 7% redeemable preference shares were issued on 1 October 20X8 at par. The dividend has been recorded in the statement of changes in equity and the proceeds have been credited to equity. The preference shares are redeemable at par in 5 years and there is an obligation to pay the dividend on a fixed date each year. The effective rate is also 7%.

**Required:**

- (a) **Discuss the accounting treatment of the three transactions, identifying any errors that you think have been made in applying accounting principles with references, where appropriate, to IFRS. Prepare the adjustments that are required to correct those errors and identify any areas where you would require further information.**  
(14 marks)
- (b) **Calculate the effect of your adjustments on Rainbow's key accounting ratios for the year ended 30 September 20X9.**  
(5 marks)
- (c) **Briefly analyse the results of your adjustments on the draft financial statements for the current year.**  
(6 marks)

**(Total: 25 marks)**

**QUESTION 7**

Gerrard Group prepares financial statements to the 31 March each year. The consolidated income statement and statement of changes in equity for the year ended 31 March 20X5, and the consolidated statements of financial position at the beginning and end of that period are given below.

**Consolidated income statement – year ended 31 March 20X5**

	\$000
Revenue	5,500
Cost of sales	(3,200)
	-----
Gross profit	2,300
Other operating expenses	(1,634)
	-----
Profit from operations	666
Finance cost	(350)
Share of associates profit after tax	990
	-----
Profit before tax	1,306
Income tax	(394)
	-----
Profit after tax	912
	-----
Profit attributable to non-controlling interest	188
Profit attributable to equity holders of the parent	724
	-----
	912
	-----

**Extracts from Consolidated statement of change in equity – year ended 31 March 20X5**

	<i>Parent shareholders</i>
	\$000
Balance at 1 April 20X5	11,216
Profit attributable to equity holders of the parent	724
Dividends paid	(400)
Issue of share capital	4,456
	-----
Balance at 31 March 20X5	15,996
	-----

**Consolidated statement of financial position at 31 March**

	20X5		20X4	
	\$000	\$000	\$000	\$000
<b>Assets</b>				
<b>Non-current assets</b>				
Property, plant and equipment		7,750		5,000
Goodwill on consolidation		170		140
Investment in associated undertaking		2,200		2,000
		10,120		7,140
<b>Current assets</b>				
Inventories	3,950		2,000	
Trade receivables	3,700		2,550	
Cash and cash equivalents	5,030		3,640	
		12,680		8,190
		22,800		15,330
<b>Equity and liabilities</b>				
<b>Equity</b>				
Share capital		5,880		4,000
Share premium		5,766		3,190
Retained earnings		4,350		4,026
		15,996		11,216
Non-controlling interest		460		-
<b>Non-current liabilities</b>				
Obligations under finance lease	1,434		1,340	
Interest bearing borrowings	1,500		1,100	
		2,934		2,440
<b>Current liabilities</b>				
Trade payables	1,466		560	
Accrued interest	146		120	
Income tax	458		434	
Obligations under finance leases	480		400	
Overdraft	860		160	
		3,410		1,674
		22,800		15,330

The following information is relevant to Gerrard Group:

- (i) The Gerrard Group has two wholly-owned subsidiaries. In addition, it acquired a 75% interest in Owen on 1 April 2004. It also holds a 40% interest in Finnan, which it acquired several years ago.
- (ii) The following information refers to the fair value of the net assets of Owen at the date of acquisition:

	\$000
Tangible assets	1,830
Inventory	214
Trade receivables	206
Cash	224
Trade payables	(202)
	<hr/>
	2,272
	<hr/>

The consideration for the purchase of shares in Owen comprised 600,000 ordinary \$1 shares of Gerrard, which had a market value at the date of acquisition of \$1.80 per share, and \$664,000 in cash.

- (iii) The additions to non-current assets of Gerrard Group during the year include \$1,700,000 acquired under finance leases. The group disposed of assets which had cost \$1,000,000, and which had accumulated depreciation of \$200,000 at the date of disposal. The profit arising on the sale was \$300,000. The total depreciation charge for the year was \$650,000.
- (iv) Gerrard uses the proportionate method to value NCIs.

**Required:**

**Prepare the consolidated statement of cash flows of the Gerrard Group for the year ended 31 March 20X5 in the form required by IAS 7 Statement of cash flows. Notes to the statement of cash flow are NOT required.**

**(25 marks)**