

# COMMONWEALTH OF AUSTRALIA

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Family Name	
Given Names	
Student Number	
Teaching Period	Semester 2 Special/Summer Semester, 2015

<b>FINAL EXAMINATION</b>	<b>DURATION</b>
<b>PRBF010 – Aspects of Corporate Finance</b>	Reading Time: <b>10</b> minutes
	Writing Time: <b>180</b> minutes

### INSTRUCTIONS TO CANDIDATES

1.1 The examination has 2 sections.

<b>Section A:</b>	<b>Multi Choice Questions:</b> Answer <b>ALL</b> questions 10 marks
Suggested Time:	18 minutes
<b>Section B:</b>	<b>Short Answer Questions:</b> Answer <b>ALL</b> questions 90 marks
Suggested Time:	162 minutes

Section A must be answered on the Multiple Choice Answer Sheet provided in this examination paper and must be handed in with your answer booklet.

Section B is to be answered in the Answer Booklet provided.

Please ensure that your name and student number are clearly indicated on your Answer Sheet and at the top of this examination paper.

1.2 Do not commence writing until instructed to do so.

### EXAM CONDITIONS

**You may begin writing from the commencement of the examination session.** The reading time indicated above is provided as a guide only.

This is a RESTRICTED OPEN BOOK examination  
Any non-programmable calculator is permitted  
No handwritten notes are permitted  
Any hard copy, unannotated English dictionary is permitted

<b>ADDITIONAL AUTHORISED MATERIALS</b>	<b>EXAMINATION MATERIALS TO BE SUPPLIED</b>
No additional printed material is permitted	1 x 8 Page Book 1 x 4-Multiple Choice Answer Sheet Formulae Sheet and Tables

**THIS EXAMINATION IS PRINTED  
DOUBLE-SIDED.**

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BLANK.**

## Section A

### Multiple Choice Questions

**Total No of Marks for this section: 10**

This section should be answered on the Multiple Choice Answer sheet provided. Please ensure that your name and student number have been written on the Multiple Choice Answer sheet and place it in the completed Answer Booklet

Answers should be clearly marked, using a black or a blue pen. DO NOT write in pencil. If a choice for a particular question is subsequently discarded and a new answer is chosen, cross out the original answer and clearly mark the new answer.

The marks for each question are indicated.

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## Section B

### Short Answer Questions

**Total No of Marks for this section: 90**

This section should be answered in the Answer Booklet provided.

The marks for each question are indicated.

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## Question 1

- a) List and briefly describe the five basic corporate finance functions as set out by Graham and Smart. (10 marks)
- b) Bearing in mind your answer to part a) set out three differences between the role of a financial manager and a financial accountant (5 marks)
- c) Bearing in mind your answers to part a) and b) why would a financial manager analyse the financial statements, management accounts, budgets and strategic plans of the firm? (5 marks)

(Total marks for Question one = 20 marks)

## Question 2

- a) Briefly define and give an example of systematic and unsystematic risk relating to Dick Smith and JB HiFi and state which type of risk the market rewards (5 marks)
- b) Using the CAPM calculate the required rate of return for Dick Smith and JB HiFi given that they have respective  $\beta$  values of 1.4 and 1.6 respectively. The risk free rate is currently 5% and the market return is 10% (3 marks)
- c) Calculate the market risk premium for Dick Smith and JB HiFi and briefly define the term "market risk premium" and state how it is shown in the CAPM. (4 marks)
- d) Dick Smith and JB HiFi are considering issuing bonds. From an investors view point give three sources of risk of investing in bonds (3 marks)

- e) Any bonds issued are likely to be issued with the following profiles:

	Dick Smith	JB HiFi
Coupon rate	9%	10%
Years to maturity	7	12
Face value	\$1,000	\$1,000
Bond Rating	AA	Aab

Calculate the likely values of both bonds if the market's required yield is 12%

(4 marks)

- f) If an investor wants to reduce the interest rate risk, which bond, (Dick Smith or JB HiFi) would they chose to invest in and why?

(2 marks)

- g) If an investor wants to reduce the default risk, which bond, (Dick Smith or JB HiFi would) they chose to invest in and why?

(2 marks)

- h) Dick Smith is considering including a call provision in its new bond issue. State two benefits to the company of including a call provision.

(2 marks)

(Total marks for Question two = 25 marks)

## Question 3

The following table shows the estimated profits before depreciation and tax (PBDT) over the next 5 years for both a new and an existing milling machine.

Year	New Milling Machine	Existing Milling Machine
	PBDT \$	PBDT \$
1	40,000	25,000
2	40,000	26,000
3	40,000	24,000
4	40,000	22,000
5	40,000	20,000

The existing milling machine was purchased three years ago. It cost \$60,000 to buy and install and is being depreciated evenly over the first 5 years of its expected life. Its current market value is \$70,000. However, it is now thought to have a useable life of 5 more years at the end of which it is estimated to be worth \$10,000.

The new milling machine will cost \$110,000 with delivery costs of \$20,000. It is thought to have a five year life and will be depreciated using the same prime cost method. The new milling machine requires the following additional investments: Inventory \$15,000 and Accounts Receivable \$20,000. In 5 years time the new milling machine will be sold for \$30,000 before tax.

The company pays corporation tax at the rate of 30%.

You are required to:

- Calculate the initial investment if the new milling machine replaces the old one. (5 marks)
- Calculate the incremental operating cash flows expected if the new milling machine replaces the old one. (10 marks)
- Calculate the terminal cash flows expected if the new milling machine replaces the old one. (5 marks)
- Make a recommendation as to whether the old milling machine should be replaced or not if the weighted average cost of capital is 9% (5 marks)

(Total marks for Question three = 25 marks)

## Question 4

Last year ABC Ltd reported earnings available to ordinary shareholders of \$5 million. \$1,250,000 was distributed as a dividend to the owners of its 1,000,000 shares.

The capital structure of the company is 50% ordinary shares, 10% preference shares and 40% debt. The company is taxed at 30%.

- a) If the market price of the shares is \$26.25 and the dividends are expected to grow indefinitely at 5% per annum what is the company's cost of financing a new project with retained earnings?  
(5 marks)
- b) If the company issues preference shares for a market price of \$15 and pays flotation costs of \$2 per share, what is the cost of preference share financing given that the preference share will pay a dividend of \$1.04 in perpetuity commencing one year from now?  
(5 marks)
- c) If the company can issue \$1,000 par, 10% coupon, 7-year bonds that can be sold for \$1,100 each with flotation costs of \$20 per unit calculate the approximate cost of new debt financing.  
(5 marks)
- d) Calculate the weighted average cost of capital for the company  
(5 marks)

(Total marks for Question four = 20 marks)



## Formulae Sheet and Tables

$$r_j = R_F + [b_j \times (r_m - R_F)]$$

$$r_s = \frac{D_1}{P_0} + g$$

$$r_p = \frac{D_p}{N_p}$$

$$r_d = \frac{I + \frac{\$1,000 - N_d}{n}}{\frac{N_d + \$1,000}{2}} (1 - T)$$

Present Value Interest Factors for one dollar															
Year	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%
1	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909	0.901	0.893	0.885	0.877	0.870
2	0.980	0.961	0.943	0.925	0.907	0.890	0.873	0.857	0.842	0.826	0.812	0.797	0.783	0.770	0.756
3	0.971	0.942	0.915	0.889	0.864	0.840	0.816	0.794	0.772	0.751	0.731	0.712	0.693	0.675	0.658
4	0.961	0.924	0.889	0.855	0.823	0.792	0.763	0.735	0.708	0.683	0.659	0.636	0.613	0.592	0.572
5	0.952	0.906	0.863	0.822	0.784	0.747	0.713	0.681	0.650	0.621	0.594	0.567	0.543	0.519	0.497
6	0.942	0.888	0.838	0.790	0.746	0.705	0.666	0.630	0.596	0.565	0.535	0.507	0.480	0.456	0.432
7	0.933	0.871	0.813	0.760	0.711	0.665	0.623	0.584	0.547	0.513	0.482	0.452	0.425	0.400	0.376
8	0.924	0.854	0.789	0.731	0.677	0.627	0.582	0.540	0.502	0.467	0.434	0.404	0.376	0.351	0.327
9	0.914	0.837	0.766	0.703	0.645	0.592	0.544	0.500	0.460	0.424	0.391	0.361	0.333	0.308	0.284
10	0.905	0.820	0.744	0.676	0.614	0.558	0.508	0.463	0.422	0.386	0.352	0.322	0.295	0.270	0.247
11	0.896	0.804	0.722	0.650	0.585	0.527	0.475	0.429	0.388	0.351	0.317	0.288	0.261	0.237	0.215
12	0.887	0.789	0.701	0.625	0.557	0.497	0.444	0.397	0.356	0.319	0.286	0.257	0.231	0.208	0.187
13	0.879	0.773	0.681	0.601	0.530	0.469	0.415	0.368	0.326	0.290	0.258	0.229	0.204	0.182	0.163
14	0.870	0.758	0.661	0.578	0.505	0.442	0.388	0.341	0.299	0.263	0.232	0.205	0.181	0.160	0.141
15	0.861	0.743	0.642	0.555	0.481	0.417	0.362	0.315	0.275	0.239	0.209	0.183	0.160	0.140	0.123
Present Value Interest Factors for a one dollar Annuity															
Year	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%
1	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909	0.901	0.893	0.885	0.877	0.870
2	1.970	1.942	1.914	1.886	1.859	1.833	1.808	1.783	1.759	1.736	1.713	1.690	1.668	1.647	1.626
3	2.941	2.884	2.829	2.775	2.723	2.673	2.624	2.577	2.531	2.487	2.444	2.402	2.361	2.322	2.283
4	3.902	3.808	3.717	3.630	3.546	3.465	3.387	3.312	3.240	3.170	3.102	3.037	2.975	2.914	2.855
5	4.854	4.713	4.580	4.452	4.329	4.212	4.100	3.993	3.890	3.791	3.696	3.605	3.517	3.433	3.352
6	5.796	5.601	5.417	5.242	5.076	4.917	4.767	4.623	4.486	4.355	4.231	4.111	3.998	3.889	3.785
7	6.728	6.472	6.230	6.002	5.786	5.583	5.389	5.206	5.033	4.868	4.712	4.564	4.423	4.288	4.160
8	7.652	7.326	7.020	6.733	6.463	6.210	5.971	5.747	5.535	5.335	5.146	4.968	4.799	4.639	4.487
9	8.566	8.162	7.786	7.435	7.108	6.802	6.515	6.247	5.995	5.759	5.537	5.328	5.132	4.947	4.772
10	9.471	8.983	8.530	8.111	7.722	7.360	7.023	6.710	6.418	6.145	5.889	5.650	5.426	5.216	5.019
11	10.368	9.787	9.253	8.761	8.306	7.887	7.499	7.139	6.805	6.495	6.207	5.938	5.687	5.453	5.234
12	11.255	10.575	9.954	9.385	8.863	8.384	7.943	7.536	7.161	6.814	6.492	6.194	5.918	5.660	5.421
13	12.134	11.348	10.635	9.986	9.393	8.853	8.358	7.904	7.487	7.103	6.750	6.424	6.122	5.843	5.583
14	13.004	12.106	11.296	10.563	9.899	9.295	8.745	8.244	7.786	7.367	6.982	6.628	6.303	6.002	5.724
15	13.865	12.849	11.938	11.119	10.380	9.712	9.108	8.559	8.061	7.606	7.191	6.811	6.463	6.142	5.847