FP

Singapore CA Qualification (Foundation) Examination
1 December 2025
Financial Management

INSTRUCTIONS TO CANDIDATES

1. The time allowed for this examination paper is **3 hours 15 minutes**.

2. This examination paper has **FOUR (4)** questions and comprises **EIGHTEEN (18)** pages (including this instruction sheet, Appendix A and Appendix B). Each question may have **MULTIPLE** parts and **ALL** questions are examinable.

3. This is a restricted open-book examination. This means that you are allowed to only bring the following materials into the exam location:

   - One A4-sized double-sided cheat sheet.

   - One A4-sized double-sided blank scratch paper.

4. During the examination, you are allowed to use your laptop and any calculators that comply with the ISCA's regulations. Please note that watches, mobile phones, tablets, and all other electronic devices **MUST NOT** be used during the examination and **MUST NOT** be within reach or sight or hearing from where you are seated to write the exam.

5. During the examination, videos of you and your computer screen will be recorded for the purpose of ensuring examination integrity and you have consented to these recordings.

6. This examination paper is the property of the Accounting and Corporate Regulatory Authority.

MODULE-SPECIFIC INSTRUCTIONS:

7. Assume that all dollar amounts are in Singapore dollar (S$) unless otherwise stated.

IMPORTANT NOTICE:
If you are not feeling well, please do not press "Start Assessment". If you have started and leave during the exam, you would be deemed to have attempted the paper.

e-Exam Question Number	**VERY IMPORTANT NOTICE**
1	1. Your question paper is attached under the **"Resource"** tab found at the bottom right of **EACH** question.

Other important information:

2. You will **only be allowed** to access the Excel function from your computer.

3. You are **NOT ALLOWED** to access any websites or reference materials (except for your A4-sized double-sided cheat sheet) during the exam.

4. You are **NOT ALLOWED** to print the question paper.

5. **Please take note that your screen will be monitored throughout the examination. If you are found to have accessed unauthorised materials or websites, or if you cheat or attempt to cheat, you will be liable to severe disciplinary action.**

   Should you encounter any issues during the exam, please call the following number:

   +65 6028 9811

6. **You do not need to fill in an answer to this instruction question.**

Question 1 – (a) and (b)

Background:

Oakridge Doors ('Oakridge') is a listed company that specialises in manufacturing heavy solid wood interior doors. The company's products are made from chipboard with a micro-engineered plastic veneer designed to look indistinguishable from real wood. Oakridge now plans to expand its operations to include the production of high-quality exterior doors. This expansion requires a capital investment of $25 million, which the company intends to raise through borrowing.

The current gearing level in the industry averages 25%, measured as

long term debt / (long term debt + equity) using market values where possible.

Current financing:

- **Ordinary Shares:**
    - 10 million shares issued.
    - Each share trades at $6.00 cum dividend.
    - A dividend of $0.50 per share is about to be paid.
    - Share price is expected to grow at a constant rate of 4% annually.
- **Existing Debt:**
    - $20 million bank loan at 10% annual interest, repayable in five years.
    - $100 nominal value irredeemable debentures, with a 10% coupon rate. Debentures are trading at $95 (ex-interest).

Expansion Proposal:

The company proposes borrowing an additional $25 million in debt from the bank to fund its exterior door production facilities.

Additional information:

- Risk-free rate: 3%.
- Market return: 10%.
- Oakridge's equity beta: 1.2.
- Corporate tax rate: 17%

e-Exam Question Number	Question 1 required:
2	**(a)** Calculate the current weighted average cost of capital, using the CAPM to calculate the cost of equity capital. **(15 marks)**
3	**(b)** Explain the predicted effect on the Company's WACC if the $25m debt is raised using: **(i)** MM theory (with tax); **(ii)** the Traditional view of gearing. **(10 marks)** **(Total: 25 marks)**

Question 2 – (a) and (b)

NanoTech Robotics, a company based in Singapore, manufactures nano-robots, which are microscopic robots designed for a variety of tasks including cleaning, maintaining, and coating hard-to-reach areas. The company is planning to build a factory in Malaysia to produce nanoglass – a special coating for glass that constantly cleans the surface. Malaysia's currency is Malaysian Ringgit (RM).

The nanoglass product is expected to have a project life of three years. An initial investment of S$60 million will be required to establish the factory. This investment amount is after accounting for significant grants provided by the Malaysia government to encourage the project. However, no cash flows are allowed to be remitted back to Singapore until the end of the project.

The Singapore weighted average cost of capital, applicable to this project, is 10% per year. The general level of inflation in Singapore is 1% per year.

Key Details:
1. **Production Volumes**:
   o Year 1 demand: 10,000 consignments
   o Growth in demand: 10% per year
   o Factory capacity limit: 12,000 consignments
2. **Sales Price**:
   o RM (Malaysia Ringgit) 18,000 per consignment, constant over the project's term.
3. **Costs**:
   o **Variable costs (excluding labour)** : RM7,500 per consignment in Year 1, inflating at 10% annually.
   o **Labour**: RM1,000 per consignment in year 1, inflating at Malaysia's general rate of inflation of 5% annually.
   o **Marketing & Administration**: S$3 million annually incurred in Singapore, constant over the project's term.
4. **Exchange Rate**:
   o Current rate: RM3 = S$1.

The company recognises its exposure to foreign exchange risk, which can take the form of transaction, translation, or economic risk, but is uncertain about the meaning of these terms in the context of the project.

e-Exam Question Number	Question 2 required:
4	**(a)** Calculate the Net Present Value (NPV) of the nanoglass project in Singapore dollars, using Purchasing Power Parity to predict the exchange rate. Based on your calculation, recommend whether the company should proceed with the investment. **(19 marks)**
5	**(b)** Explain the three types of foreign currency exposure, providing examples relevant to the company's situation. **(6 marks)** **(Total: 25 marks)**

Question 3 – (a), (b), (c) and (d)

Knitted Dreams, a newly established company, has launched an exclusive range of premium-quality jumpers, each priced at S$250. In the first month, the company successfully sells 10,000 jumpers, generating strong demand and establishing a solid customer base.

Thanks to the overwhelming success of its products and brand, the company's sales volumes doubled every month thereafter, with the customer demand showing no sign of slowing. The contribution margin on each jumper sold is 50% of the sales price, meaning that for every jumper sold, the company earns S$125 in contribution

To stimulate continued sales growth and attract more customers, Knitted Dreams has always offered a three-month credit term to its customers, allowing them to pay for their jumpers later. This move is intended to make the products more accessible to a larger customer base, which in turn drives further sales. Customers take the full period of credit offered.. However, suppliers, wary of the company's newness in the market, do not extend any credit terms to Knitted Dreams. As a result, the company must pay suppliers for the jumpers upfront, straining its cash flow.

The business started with a zero bank balance and is financing operations via an overdraft. Ignore fixed costs and overdraft interest.

e-Exam Question Number	Question 3 required:
6	**(a)** Calculate the contribution for each month and in total for the first six months of operation.
	(5 marks)
7	**(b)** Calculate the month-end cash balance for each of the first six months. **(5 marks)**
8	**(c)** Compare and explain the performance of the company in relation to profits and cash flows in the context of the new launch of the jumper. **(6 marks)**
9	**(d)** Recommend and explain THREE ideas to improve Knitted Dreams' cashflow. **(9 marks)**
	(Total: 25 marks)

Question 4 – (a), (b) and (c)

Spateburn Capital, a large, listed conglomerate company, has identified and appraised several projects as follows:

Project	Initial Cost	NPV
A	$10m	$4m
B	$20m	$6m
C	$5m	-$1m
D	$8m	$5m
E	$20m	$7m

The company has a restricted capital investment budget of $35m. No projects can be delayed, but they are divisible. If Projects B and E are completed together, they will generate an additional $0.5m in net present value due to synergies. The company wishes to maximise shareholder wealth, and is listed on a well-regulated and respected international stock exchange.

Key information:
- The total capital available for investment is $35m.
- The Finance Director wants to announce the package of projects in order to boost the company's share price, while the Marketing Director believes that there will be no impact on share price until the income is confirmed in audited profits.

e-Exam Question Number	Question 4 required:
10	**(a)** Calculate the optimal investment plan and associated total NPV of the plan. **(12 marks)**
11	**(b)** Using the Efficient Markets Hypothesis (EMH), discuss the Finance Director's and Marketing Director's perspectives. Explain which you feel is likely to be the correct perspective in this situation. **(6 marks)**
	Spateburn will draw down the $35m needed for investment evenly over the coming 12 months from its short-term securities investment pool. This pool earns an annual return of 15% compared to cash on deposit, which only earns 2%. There is a fixed fee of $50,000 for selling a parcel of securities.
12	**(c)** Using the Baumol model, calculate how often a parcel of securities should be converted into cash, and the value of securities that should be converted each time. Assume 365 days in a year. **(7 marks)**
	(Total: 25 marks)

END OF PAPER

Appendix A – Formulae and Present Value Tables

Financial ratios

Current ratio	=	Current assets/Current liabilities
Net working capital	=	Current assets - Current liabilities
Return on total assets	=	Net income/Average total assets
Return on equity	=	Net income/Average shareholders' equity
Receivables days	=	(Accounts receivable balance/Annual credit sales) x 365
Receivables turnover	=	(Annual credit sales/Accounts receivable balance) to give 'times a year'
Payables days	=	(Accounts payable balance/Annual purchases or cost of sales) x 365
Payables turnover	=	(Annual purchases or cost of sales/Accounts payable balance) to give 'times a year'
Inventory days	=	(Inventory balance/Cost of sales) x 365
Inventory turnover	=	(Cost of sales/Inventory balance) to give 'times a year'
Working Capital cycle	=	Receivables days + Inventory days - Payables days

Dividend Growth Model

$K_e = [D_0(1+g) / P_0] + g$

Where:

K_e	=	The cost of equity
D_0	=	The current dividend per share
g	=	Future anticipated annual growth rate in dividends per share
P_0	=	The current ex-div share price

g can be estimated as

$(D_r / D_e)^{(1/n)} - 1$

Where:

D_r = The latest dividend in a historical pattern

D_e = The earliest dividend in a historical pattern

n = The number of years between the earliest and the latest dividend in a sequence of historical dividends

Or g = b x r

Where:

b = The proportion of earnings held back

r = The return on reinvested earnings

Capital Asset Pricing Model ('CAPM'):

$K_e = R_f + \beta(R_m - R_f)$

K_e = The cost of equity

R_f = The risk-free rate of return

R_m = The return on a market portfolio

β = The systematic risk factor

Valuations

Weighted Average Cost of Capital (WACC)

$WACC\% = [(V_e/(V_e+V_d) \times K_e] + [(V_d/(V_e+V_d) \times K_d]$

Where:

V_e = The market value of all ordinary shares

V_d = The market value of debt

K_e = Cost of Equity

K_d = After-tax Cost of Debt

Constant Growth Dividend Discount Model

$P_0 = D_0 (1+g) / (K_e - g)$

Where:

K_e = The cost of equity

D_0 = The current dividend per share

g = Future anticipated annual growth rate in dividends per share

P_0 = The current ex-div share value of one share

Price-Earnings (P/E) Model (EPS)

$P_0 = P/E \times EPS$

Where:

P_0 = Value of 1 ordinary share

P/E = An applicable price/earnings ratio (calculated as price per share/earnings per share)

EPS = Earnings per share (being earnings available for distribution to ordinary shareholders/number of ordinary shares)

Present value of an annuity

$$\frac{1 - (1 + r)^{-n}}{r}$$

Where:

r = Discount rate

n = Number of periods

Present value

$PV = FV_n / (1 + i)^n$

Where:

PV = Present value

FV_n = Future value at end of period n

i = Interest rate per period

n = Number of periods

Internal Rate of Return

IRR is approximately $\quad A + \dfrac{(B - A)N_A}{(N_A - N_B)}$

Where:

A $\quad = \quad$ The lower discount rate chosen

B $\quad = \quad$ The higher discount rate chosen

$N_A \quad = \quad$ The net present value calculated at A%

$N_B \quad = \quad$ The net present value calculated at B%

The nominal (or money) cost of capital

$(1+m) = (1+i) \times (1+r)$

m $\quad = \quad$ The money rate

i $\quad = \quad$ The inflation rate

r $\quad = \quad$ The real rate

The Baumol Model of Cash Management:

$$Q = \sqrt{\frac{2C_O D}{C_H}}$$

Where:

Q $\quad = \quad$ The value of securities to sell each time

$C_o \quad = \quad$ The fixed costs associated with selling a parcel of securities

D $\quad = \quad$ The annual demand for cash

$C_H \quad = \quad$ The annual interest rate, as a decimal, associated with holding cash as opposed to investments

Interest Rate Parity

An unbiased estimate for the future spot rate of exchange can be calculated as:

$$S_1 = S_0 \times \left(\frac{1+i_a}{1+i_b}\right)$$

Where:

a	=	One country
b	=	The base country
S_1	=	The estimated future spot rate in 1 year's time in terms of the number of $ in country a per $1 in country b
S_0	=	The current spot rate in terms of the number of $ in country a per $1 in country b
i_a	=	Annual interest rate in country a as a decimal
i_b	=	Annual interest rate in country b as a decimal

Present value interest factor of an (ordinary) annuity of $1 per period at i% for n periods, PVIFA(i,n).									
Period	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	15.678	14.324	13.134	12.085	11.158	10.336	9.604	8.950	8.365
20	18.046	16.351	14.877	13.590	12.462	11.470	10.594	9.818	9.129	8.514

Period	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

Present value interest factor of $1 per period at i% for n periods, PVIF(i,n).

Period	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

Period	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	0.074	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

Appendix B – Common verbs used by the Examiners

Verb	Description
Calculate / Compute	Do the number crunching and derive the correct answer. Make sure that you write down your workings and crosscheck your numbers.
Discuss	**Discuss** requires you to provide the 'for' and 'against' arguments, you cannot have a discussion without opposing views otherwise it would be just a conversation. If **discuss** is placed near the front of the instruction, then it requires you to provide an answer that is similar to **explain**, but addresses both the for and against arguments.
Explain	**Explain** requires you to write at least several sentences conveying how you have **analysed** the information in a way that a layperson can easily understand the concept or grasp the technical issue at hand. For instance, "**Explain** whether an 'emphasis of matter' paragraph or an 'other matter' paragraph would be most appropriate in this situation", or "**Explain** how a partnership is assessed for tax". **Evaluate** and **Examine** are interchangeable.
Produce	**Produce** requires you to present your answer in a specific format from scratch. For instance, you may be required to "**Produce** a Profit or Loss Statement".
Use	This instruction tells you the type of model that you must **use** when formulating your answer. For instance, "**Using** the Discounted Cash Flow approach, …" tells you what valuation approach to use. Another common phrase is "**Using** the facts of the case, ...", which tells you that you must relate your answer to the specific facts given in the question scenario. Generic answers will not pass
Recommend	Make a statement about the most appropriate course of action. If there is more than one possible course of action, **state** which action you would choose and why (**justify** your choice). Your professional judgment and your ability to **interpret** the wider situation are critical to scoring well in these types of questions. Don't forget to think about the future and the past, not just the present when making a **recommendation**.