



## Singapore CA Qualification Examination

**18 June 2025**

### **Business Value, Governance & Risk**

#### **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 **TWENTY (20)** pages (including this instruction sheet). Each question may have **MULTIPLE** parts and **ALL** questions are examinable.
3. This is an open-book examination. During the examination, you are allowed to use your laptop and any calculators that comply with the ISCA's regulations. Please note that smartwatches, mobile phones, tablets, and all other electronic devices **MUST NOT** be used during the examination.
4. 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.
5. This examination paper and all video recordings of this exam are the property of the Accounting and Corporate Regulatory Authority.
6. Only answers in English are accepted.

#### **MODULE-SPECIFIC INSTRUCTIONS:**

6. This case is hypothetical and has been written exclusively for the purpose of this examination. Names, characters, places and incidents used are imaginary or fictional. Any resemblance to actual events or locales or persons, living or dead, is entirely coincidental. This case is not to be cited without the permission of the Accounting and Corporate Regulatory Authority.

#### **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.**

**\*\*VERY IMPORTANT NOTICE\*\***

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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:

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

### **About NutraJuice Limited**

NutraJuice Limited (“NutraJuice”) focuses on processing range of pure, blended, and fortified tropical fruit juices which are responsibly sourced from across the Southeast Asian region and marketed under the NutraJuice brand.

NutraJuice aims to bring the vibrant world of Southeast Asian tropical fruits to tables around the world. With a keen focus on preserving and enhancing the nutritional values and unique flavours of the fruits, NutraJuice provides a variety of products that cater to both local and global palates using tropical fruits like durian, mango, lychee and rambutan as well as more common fruits such as apple, orange, pineapple, and melon.

Whilst Singapore grows a variety of tropical fruits which can harness this advantage into a food processing business, NutraJuice imports more than 80% of its fresh produce for its products from neighboring Southeast Asian countries, predominantly Malaysia and Indonesia.

NutraJuice strategic aims to:

1. Implement sustainable operating practices, ensuring that the fruits are sourced responsibly, and implementing processes that minimise waste, such as utilising fruit remnants as compost or in the creation of other byproducts.
2. Focus on preserving and enhancing the nutritional value of fruit used in its products, offering fruit juices which are not just delicious but also nutritious.
3. Maintain a stringent production quality control environment to ensure that the flavours, nutritional value, and safety of all NutraJuice products are consistent.

Whilst consumption of NutraJuice in Singapore is a key market, NutraJuice also aims to develop its export market, sharing the unique and diverse flavours of Southeast Asian fruits with the world.

## **Risk management at NutraJuice**

Amidst a strategic review meeting, NutraJuice's Risk Manager, Ms. Lianne Tan, presented a detailed risk assessment report to the Board. Ms. Tan highlighted four prominent risks that NutraJuice is likely to encounter in its pursuit of growth and sustainable operations. These risks, if left unattended, could have significant consequences on NutraJuice's brand reputation, profitability, and overall strategic objectives.

- 1. Climate-change risk:** Given that NutraJuice's core business revolves around sourcing and processing tropical fruits, the company is inherently exposed to the risks associated with climate change.
- 2. Political instability risk:** NutraJuice sources more than 80% of its fresh produce from neighbouring Southeast Asian countries, predominantly Malaysia and Indonesia which could negatively impact on NutraJuice operations.
- 3. Cybersecurity risk:** As NutraJuice ventures into digital platforms for its sales, supply chain management, marketing, and manufacturing operations, the company is more susceptible to the risk from cyber-attack.
- 4. Quality control risk:** Fruit delivery inspection protocols have observed an increase in the incidence of poor condition of some imported batches of fruit at the port and subsequent spoilage in transit. Also, there is an inherent risk related to the quality of the imported fruits which could negatively impact NutraJuice product quality.

Over the past year, NutraJuice has encountered some challenges in its supply chain, procurement processes, and faced unforeseen risks that have hindered anticipated performance. Lianne Tan believes in the importance of having a robust internal control environment and vigilant risk monitoring mechanism in place.

In response, NutraJuice's Board of Directors, in collaboration with its Risk Manager, has decided to evaluate the current state of its internal control environment and risk monitoring processes at NutraJuice. The Board of NutraJuice understands that the foundation of a robust control mechanism lies in the quality and characteristics of the information being utilised to make informed decisions.

As an initial step, the Board is seeking help from an external consultant to advise on the qualities and characteristics of the information required by NutraJuice, to improve the monitoring of its internal control environment and risk monitoring.

### **Recent production issue**

The production team at NutraJuice has been closely analysing the production patterns for NutraJuice product lines over the past year. While the team has always been diligent in ensuring product quality, recent challenges, including disrupted shipments and some incidents of fruit spoilage, have raised concerns about the robustness of the current internal controls in the production facility.

The chief production manager is conscious of NutraJuice's commitment to quality and growth and has organised a production team meeting to collectively identify areas in the production process and has said:

"Considering our recent challenges and the intrinsic characteristics of our exotic fruit products, what additional internal controls can we introduce at our production facility to ensure we not only maintain but elevate the quality and consistency of NutraJuice lines?"

e-Exam Question Number	Question 1 required:
2	<p>(a) Evaluate each of the <b>FOUR</b> risks identified by NutraJuice's Risk Manager by considering risk frequency (high/medium/low) and risk impact (high/medium/low).</p> <p style="text-align: right;"><b>(8 marks)</b></p>
3	<p>(b) Advise a risk mitigation strategy to the NutraJuice Risk Management Committee for each risk evaluated in <b>part (a)</b>.</p> <p style="text-align: right;"><b>(4 marks)</b></p>
4	<p>(c) Explain how the following <b>FOUR</b> characteristics of information can strengthen the internal control environment at NutraJuice and for each characteristic, provide an example of its importance to the NutraJuice sales, procurement, or production operations.</p> <ul style="list-style-type: none"> <li>(i) Real-time</li> <li>(ii) Accuracy</li> <li>(iii) Completeness</li> <li>(iv) Cross-departmental data integration</li> </ul> <p style="text-align: right;"><b>(4 marks)</b></p>
5	<p>(d) To enhance the business value of NutraJuice, recommend <b>FOUR</b> measures to improve the efficiency and reliability of its product manufacturing and distribution.</p> <p style="text-align: right;"><b>(6 marks)</b></p> <p style="text-align: right;"><b>(Total: 22 marks)</b></p>

## Recent NutraJuice financial performance

### Statement of profit and loss

Year ended 31 March	2025	2024
	S\$'000	S\$'000
Revenue (See note 1)	5,146.0	4,183.6
Cost of sales (See note 1)	<u>(2,936.2)</u>	<u>(2,091.5)</u>
<b>Gross profit</b>	<b>2,209.8</b>	<b>2,092.1</b>
Selling and administrative expenses	(529.7)	(478.4)
Depreciation amortisation and impairment	(488.6)	(492.1)
Other operating expenses	<u>(420.3)</u>	<u>(354.8)</u>
<b>Operating profit</b>	<b>771.2</b>	<b>766.8</b>
Finance costs	<u>(50.0)</u>	<u>(50.0)</u>
<b>Profit before tax</b>	<b>721.2</b>	<b>716.8</b>
Tax	<u>(122.6)</u>	<u>(121.9)</u>
<b>Profit after tax</b>	<b><u>598.6</u></b>	<b><u>594.9</u></b>

Note 1: Other information	2025	2024
Units sold (000's)	1,217.1	1,026.2
Debt (S\$'000)	2,936.2	2,091.5
Estimated equity value (S\$'000)	5,986.0	5,949.4
Total capital employed (S\$'000)	<u>8,922.2</u>	<u>8,040.9</u>

The Board of NutraJuice estimated the equity value of NutraJuice to be a multiple of ten times current profit after tax.

### Operating statement

The Finance Director of NutraJuice has provided the following operating statement to NutraJuice's investors in a recent communication which explains NutraJuice financial and operating performance for the year ended 31 March 2025.

"I am pleased to report that the year to 31 March 2025 has been a fruitful year marked by substantial growth. Our shared faith in our mission to deliver fresh, quality, and

sustainable fruit-based products to the market and the hard work of our team have been essential in achieving these results. However, in the spirit of transparency, I must share that we faced some challenges which slightly hindered our anticipated performance.

While this year's sales growth has been robust, we narrowly missed our sales targets for the year, with both product ranges falling short by approximately 10%. The main reason for this is the uncertainties and issues in our supply chain, specifically regarding the procurement of fresh fruit from our international partners.

There have been instances of delays or outright cancellations of fruit consignments from certain suppliers, disrupting our production rhythm. Furthermore, we confronted challenges related to the condition of some shipped fruit batches at the port. Unfortunately, this led to spoilage, rendering the fruit unsuitable for our production needs. Such unforeseen circumstances not only hampered our production volume but also escalated our cost of sales. This was because sourcing alternative supplies at short notice often came at a higher price.

Moreover, we witnessed a rise in various operating expenses. Factors like employee wages, energy consumption, sales initiatives, marketing campaigns, and logistics all experienced an uptick in costs. While we made efforts to offset these increased expenditures by revising our prices for retail customers, the intensely competitive landscape of the juice sector limited our ability to completely pass on these cost augmentations.

In closing, while we faced some challenges this year, our commitment to quality, innovation, and growth remains in place and we are taking proactive measures to mitigate future supply chain challenges.”

The Board of NutraJuice has requested the finance team to evaluate the financial performance the year to 31 March 2025 versus the year to 31 March 2024.



To assist, the Finance Director of NutraJuice has requested that your analysis contains the following financial ratios:

*For 2025 only*

- 2025 Revenue growth %
- 2025 Sales volume growth %

*For 2025 and 2024*

- Average price per unit (\$) (measured: Revenue / Sales volume)
- Gross profit margin %
- Operating profit margin %
- Return on capital employed % (measured: Earnings before interest and tax / Debt plus equity)

### **International expansion of the NutraJuice range**

At the latest Board of Directors meeting, the CEO of NutraJuice said, "Our domestic performance is impressive, but the Singapore market is highly competitive and limited in size. We must look towards future growth. Therefore, it is essential that we explore beyond our current borders and consider international expansion for our NutraJuice product range.

Adjacent nations to Singapore, such as Malaysia, offer us a strategic entry point into the international market. The people of these countries share similar taste preferences and dietary habits, making product adaptation relatively minimal compared to other international markets. Also, increasing urban population and growing health-consciousness increases demand for nutritious beverages like ours.

Additionally, we can leverage our existing supply chain, logistics and distribution networks, smoothing our entry into these markets."

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**Question 2 required:**

- 6**      **(a)** Calculate the financial ratios for NutraJuice for the year ended 31 March 2025 versus the year ended 31 March 2024, as requested by the Board of Directors of NutraJuice.

**(6 marks)**

- 7**      **(b)** Interpret the financial performance of NutraJuice for the year ended 31 March 2025 compared with the year ended 31 March 2024.

**(7 marks)**

**Note:** Candidates must use the financial ratios calculated in **part (a)** and the information provided in NutraJuice's 2025 operating report when explaining financial performance and provide an overall conclusion.

- 8**      **(c)** In addition to the financial ratios calculated in **part (a)**, advise on **THREE** other types of management information that could be implemented to improve overall decision-making at NutraJuice.

**(3 marks)**

- 9**      **(d)** Outline **SIX** factors the Board of Directors should consider when discussing the introduction of NutraJuice products into international markets.

**(6 marks)**

**(Total: 22 marks)**

## **Urban Vertical Farming (UVF)**

Despite having established a strong presence with its array of products in both local and international markets, NutraJuice is exploring sustainable and innovative approaches to fortify its supply chain and enhance product offerings.

Singapore imports over 90% of its food, which makes it significantly vulnerable to global supply chain disruptions. Given its limited arable land and dense urban infrastructure, conventional farming is hardly feasible on a large scale. This context presents an excellent setting for a case study, considering aspects like sustainability, technology integration, social impact, and global supply chain dynamics.

One innovative approach under consideration is an investment in Urban Vertical Farming (UVF). UVF uses advanced technologies like artificial intelligence and robotic process automation to meticulously monitor and manage the crop production environment. These technologies can facilitate the regulation of factors like light, humidity, nutrition, and water, ensuring optimal growth conditions and reducing the reliance on pesticides and herbicides.

UVF also applies sustainable farming practices, such as using renewable energy sources, implementing water recycling systems, and utilising organic waste for composting, to minimise the environmental impact.

By investing in UVF, NutraJuice can merge technological advancements with traditional food processing, creating a future-forward model that not only addresses current market demands but also pre-emptively addresses future challenges in supply chain and sustainability.

## **New supply initiative: Urban Vertical Farming**

The Board of NutraJuice is considering two investment options which are aimed at increasing supply capacity.

### **Option 1: Set up a new UVF**

A suitable site has been identified in Singapore for the first UVF as the land is flat and a connection point to the Singapore National Grid and produce distribution infrastructure is situated close by. The Board has determined that any investment in UVF must be commercially viable within a five-year timeframe.

The Finance Director of NutraJuice has put together initial estimates of revenue, costs and capital expenditure required over an expected five-year timeframe.

The proposed site is available for sale at S\$1,500,000. Site preparation and farm infrastructure costs are expected to be in the region of S\$160,000. In addition, the site will require the purchase of solar panels at a total estimated cost of S\$500,000, inclusive of all installation costs, to power the farm. This would make the farm environmentally sustainable and energy independent.

The Directors of NutraJuice have estimated that operating capacity will increase substantially due to increased fruit supply directly from this investment in UVF and conservatively estimate that revenue of its existing products will increase as follows:

#### **Revenue forecast compared with 31 March 2025 revenue**

**Year 1:** 2025 Revenue plus 10%

**Year 2:** 2025 Revenue plus 12.5%

**Year 3:** 2025 Revenue plus 15%

**Year 4:** 2025 Revenue plus 17.5%

**Year 5:** 2025 Revenue plus 20%

The Director estimates the additional NutraJuice product sales to incur direct variable manufacturing, sales, distribution, and other incremental costs to be approximately 35% of additional revenue.

Once UVF is operational, there will be ongoing fixed operating and maintenance costs which are estimated to be S\$150,000 per annum.

All revenues and costs are stated in 2025 nominal values unless otherwise stated. All cash flows are assumed to occur at the end of the year in which they are incurred. Inflation is forecast at 2% per annum over the next five-year period.

It is estimated that the entire UVF could be sold for a minimum of S\$2,500,000 at the end of year five. Farm decommissioning costs of 10% of the sales proceeds are expected to be incurred at the end of year five in order to restore the site to its initial condition so it is ready for alternative uses.

NutraJuice will continue to pay corporate tax in Singapore at 17% each year over the entire life of the project. Corporate tax is assumed to be paid at the end of the year in which profits are earned. The Directors of NutraJuice have advised, for simplicity, to assume five-year straight-line tax allowable depreciation on tax allowable capital expenditure. Only site preparation costs, and solar panels qualify for tax allowable depreciation.

The UVF is forecast to require additional working capital each year representing 5% of additional annual revenue for that year attributed to the UVF project. Working capital is assumed to be in place at the beginning of each year. Working capital will be released in full at the end of year five when the plant is sold.

NutraJuice plans to fund all the initial investment costs through the raising of new debt finance. The Singapore Government is willing to support new sustainability initiatives as part of their Green Initiative. The Singapore Government has offered NutraJuice a subsidised 5-year loan at 4% for 100% of the initial capital required, which is 2.5% cheaper than what NutraJuice could achieve by funding the project with a loan from an external market provider, such as a bank, and approximately to the risk-free rate for debt finance. One-off loan arrangement fees of 2% of the funds borrowed would immediately apply and are deductible for corporate tax.

The Directors of NutraJuice have identified a farming and food manufacturing company that has a quoted equity beta of 2.35 and a debt: equity ratio of 1:3. The current risk-free rate of return in Singapore's equity market is 3.5% and the average market return on equity is 8.25%.

**Option 2: Acquire a UVF start-up company**

A UVF start-up company was established last year in Singapore and its owners have made it clear to the Board of NutraJuice they are willing to sell the company to become part of the NutraJuice family, as they respect NutraJuice's sustainability values. The start-up is currently loss-making, and its first annual revenue is low at S\$100,000. However, the owners of the start-up are forecasting considerable growth and profitability once the company is fully established. The owners have indicated that they will sell the company to NutraJuice for 30 times its first annual revenue.

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**Question 3 required:**

**(a)** Evaluate the proposed investment in UVF **(Option 1)** by calculating its Adjusted Present Value (APV) by:

(i) Calculating a suitable discount rate.

**(2 marks)**

(ii) Determining the net present value (NPV) using the rate calculated in **part (i)**.

**Note:** Candidates can use a discount rate of 12% if an answer to part (i) cannot be derived.

**(12 marks)**

(iii) Determining the APV by adjusting (ii) for tax savings and subsidies on loan payments and loan arrangement fees.

**(6 marks)**

**Note:** In doing so, use end-of-year discount factors and present your answer in S\$'000s to one decimal place.

**e-Exam  
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**Question 3 required:**

**11**

- (b)** Determine a valuation of start-up UVF company (**Option 2**) based on the information provided by its owners and comment on the suitability of the valuation.

**(2 marks)**

**12**

- (c)** Evaluate **THREE** pros and **THREE** cons of **Option 2** (acquisition of UVF start-up company) compared with Option 1 (New UVF Setup) and advise the Board of NutraJuice if it should proceed with either Option 1 or Option 2.

**(8 marks)**

**(Total: 30 marks)**



## **Implementing Singapore Code of Corporate Governance principles and provisions**

The Chair of NutraJuice recently attended a seminar of the benefits of good corporate governance. The presenter explained that a well-developed corporate governance framework can help entities plan for the long-term and make better investment decisions, balance the need for timely decision making against the benefits of prevent dysfunctional concentrations of power at board level and can help to reduce perceived business risk.

The Board of NutraJuice are considering investing in improved Corporate Governance as this may help to attract new investors and lenders, which will help to finance the Board's objective to international expansion of the NutraJuice brand.

The Chair has identified the following provisions from the Singapore Code of Corporate Governance ("Code") for initial implementation. The Board would like to understand how adopting each of the following provisions from the Singapore Code of Corporate Governance provisions could enhance governance at NutraJuice.

<b>Code Provision reference</b>	<b>Code Provision</b>
<b>1.1</b>	The Board puts in place a code of conduct and ethics, sets appropriate tone-from-the-top and desired organisational culture, and ensures proper accountability within the company.
<b>1.5</b>	Directors attend and actively participate in board and board committee meetings. The number of such meetings and each individual director's attendances at such meetings are disclosed in the company's annual report.
<b>2.3</b>	Non-executive directors make up a majority of the Board.
<b>2.4</b>	The Board and board committees are of an appropriate size and comprise directors who as a group provide the appropriate balance and mix of skills, knowledge, experience, and other aspects of diversity such as gender and age, so as to avoid groupthink and foster constructive debate.
<b>3.1</b>	The Chairman and the Chief Executive Officer ("CEO") are separate persons to ensure an appropriate balance of power, increased accountability, and greater capacity of the Board for independent decision making.
<b>5.1</b>	The Nomination Committee recommends for the Board's approval the objective performance criteria and process for the evaluation of the effectiveness of the Board as a whole.
<b>7.1</b>	Executive directors' and key management performance-related remuneration is aligned with the interests of shareholders and other stakeholders and promotes the long-term success of the company.
<b>9.1</b>	The Board determines the nature and extent of the significant risks which the company is willing to take in achieving its strategic objectives and value creation.

The CEO of NutraJuice would like to understand how NutraJuice's main stakeholders will be impacted by adopting provisions from the Singapore Code of Corporate Governance for initial implementation and also, the reasons why this may help to attract new equity investors and lenders of debt finance which will support international expansion of the NutraJuice brand.

## **Enhancing sustainability: NutraJuice sustainability initiatives**

In light of increasing global concerns about environmental sustainability and corporate social responsibility, the CEO of NutraJuice has decided it is time for the company to further strengthen its stance on sustainability.

To help achieve this, the CEO has identified the following two initiatives that could potentially improve NutraJuice's sustainability performance:

### **1. Eco-friendly packaging**

The CEO proposes that NutraJuice transition from its current plastic-based packaging to a new, biodegradable, and compostable packaging materials. This change would apply to all products in the NutraJuice range. The proposed packaging material would be sourced from sustainable plant-based materials and would decompose naturally, thereby reducing the company's carbon footprint.

### **2. Community outreach program**

The CEO believes that sustainability is not just about the environment but also about the community. As a part of this initiative, NutraJuice would invest in a new community outreach program which will partner with selected schools and colleges in Singapore to educate students about the importance of a healthy lifestyle and the importance of environmental sustainability. Furthermore, NutraJuice would provide resources and support for community gardens, promoting organic farming and healthy eating.

The CEO has requested your assistance to evaluate the pros and cons of each of the two proposed sustainability initiatives.

**e-Exam  
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**Question 4 required:**

- 13**      **(a)** Explain how the role of each of the following stakeholders contributes to ensuring good corporate governance at NutraJuice.
- Directors
  - Management
  - Employees
  - External Auditor
  - Regulators and government
- (5 marks)**
- 14**      **(b)** Explain how adopting each of the Singapore Code of Corporate Governance provisions identified by the Chair could enhance governance at NutraJuice.
- (8 marks)**
- 15**      **(c)** Explain **THREE** factors why adopting the suggested Singapore Code of Corporate Governance provisions at NutraJuice will help the NutraJuice Board of Directors to secure new debt finance with lenders.
- (3 marks)**
- 16**      **(d)** Evaluate **TWO PROS** and **TWO CONS** for each of the two proposed sustainability initiatives proposed by the CEO of NutraJuice and make a recommendation to the NutraJuice Board of Directors on how to proceed.
- (10 marks)**  
**(Total: 26 marks)**

**END OF PAPER**