PP

Chartered Accountant SINGAPORE

Singapore CA Qualification Examination

INTEGRATIVE BUSINESS SOLUTIONS

Examination Day Documents

7 June 2021

INSTRUCTIONS TO CANDIDATES:

1. The time allowed for this examination paper is **4 hours and 30 minutes**. Please note, there is no separate prescribed reading time for this examination.

2. This is an open book examination. During the examination, you are allowed to use your laptop and any calculators that comply with the SAC's regulations. Please note that watches, mobile phones, tablets, and all other electronic devices **MUST NOT** be used during the examination.

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3. 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.

4. This examination paper and all video recordings are the property of the Singapore Accountancy Commission.

5. This is a hypothetical case written exclusively for 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 permission from the Singapore Accountancy Commission.

   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.

Case study report instructions

These Examination Day Documents (EDD) complete the case study scenario and set out the requirements of the report that you are required to write (**Exhibit 17**). You must combine your pre-reading and analysis of the Advance Information (AI), your other pre-examination research, and the new information in the EDD to plan the content and structure of your report, and then to write the report.

e-Exam Question Number

1

****VERY IMPORTANT NOTICE****

1. Your question paper is attached under the **"Resources"** tab found at the bottom right of **EACH** question.

2. Please download the relevant required Appendices in Question 1 of the e-Exam portal.

Other important information:

3. You will be allowed to access your reference materials but **will not be allowed** to communicate with anyone either physically or through any electronic means.

4. You are **NOT ALLOWED** to access any websites during the exam.

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

6. **Please take note that your screen will be monitored throughout the examination. If you are found to have accessed any 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 numbers:
   +65 6100 0516

7. **You do not need fill in an answer for this question.**

Report format

Requirements can be found in the Question Window of the respective Cirrus Questions. Your report should follow the following format:

Requirement	**e-Exam Qn. Number**	**Marks**
Requirement 1 – An Executive Summary	**2**	**10**
Requirement 2 – Strategic and performance analysis	**3, 4, 5, 6**	**35**
Requirement 3 – Strategic options	**7, 8, 9**	**30**
Requirement 4 – Strategic change and ethics	**10, 11, 12**	**25**

You should clearly state any assumptions that you make and include any supporting data. Please put your appendices (if any) at the end of each question part.

Please note that **only answers (including the wordings and assumptions made), appendices and workings entered in the Cirrus script on the day of the examination will be marked**.

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2	Summary consolidated management accounts 2018 – 2020	AI-7
3	Organisational structure of Biomore Pte Ltd	AI-11
4	Biomore Pte Ltd's operations	AI-17
5	Article from "Asian Business Briefing" - November 2019	AI-27
6	Briefing note to the Board of Directors from the Production Director explaining the technology used in production including artificial intelligence and blockchain (3 February 2021)	AI-31
7	Article from the "Singapore Courier" - 2 April 2021 (about the impact of coronavirus on the pharmaceutical industry)	AI-33
8	Extract from Minutes of Board of Directors' meeting – 4 April 2021	AI-37
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Exam Day Documents (EDD) – List of Exhibits

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15	Financial assumptions email prepared by senior accountant relating to the cash flows from the proposed joint venture - 29 May 2021	EDD-14
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Note: Unless otherwise stated, all dollar amounts ($) are in Singapore dollars.

EXHIBIT 12

Summary consolidated management accounts 2020 – 2021

Biomore Pte Ltd

Statement of Profit or Loss for the year ended

	Notes	31 March 2021 $million	31 March 2020 $million
Revenue	1	10,711	10,394
Cost of sales:			
Materials		(1,615)	(1,554)
Production wage costs		(964)	(935)
Depreciation of land and buildings and factory equipment - production		(957)	(732)
Total cost of sales		(3,536)	(3,221)
Gross profit		7,175	7,173
Selling and admin expenses			
Salary costs - sales and admin		(1,044)	(1,039)
Bonus costs - sales		(536)	(520)
Depreciation of office equipment and furniture		(18)	(21)
Other selling and admin costs		(622)	(433)
Total selling and admin expenses		(2,220)	(2,013)
Research and development costs			
Salary costs research		(857)	(832)
Depreciation of research equipment		(35)	(16)
Other research costs		(343)	(246)
Amortisation of development expenditure	3	(1,472)	(1,362)
Total research and development costs		(2,707)	(2,456)
Operating profit		2,248	2,704
Finance charges	5	(158)	(163)
Profit before tax		2,090	2,541
Taxation		(355)	(432)
Profit after tax		1,735	2,109
Dividends paid		(579)	(551)
Retained profits		1,156	1,558

Statement of Financial Position as at

	Notes	31 March 2021 $'million	31 March 2020 $'million
Non-current assets			
Property, plant & equipment	2	3,754	3,100
Intangible assets	3	6,500	6,876
Goodwill	4	1,700	1,700
Total non-current assets		11,954	11,676
Current assets			
Cash and cash equivalents		1,703	1,105
Trade receivables		2,035	1,974
Inventories		968	803
Total current assets		4,706	3,882
Total assets		**16,660**	**15,558**
Equity			
Share capital		1,000	1,000
Retained profits		7,467	6,311
Total equity		8,467	7,311
Non-current liabilities			
Long term loan from parent company	5	3,800	3,800
Long term borrowings from banks	5	1,890	2,100
Total non-current liabilities		5,690	5,900
Current liabilities			
Accounts payable		1,938	1,765
Current portion of long-term debt	5	210	150
Tax		355	432
Total current liabilities		2,503	2,347
Total equity and liabilities		**16,660**	**15,558**

Notes to the management accounts:

1. Analysis of revenue by therapeutic area for the year ended:

	31 March 2021 $'million	31 March 2020 $'million
Pharma respiratory	1,249	961
Pharma oncology	2,531	3,375
Pharma diabetes	4,007	3,082
Vaccines	2,168	2,395
Animal health	756	581
Total	10,711	10,394

Budgeted revenue for the year ended 31 March 2021 was $13,512 million. The difference between the actual and budgeted revenue was entirely due to disruption caused by the coronavirus pandemic.

Materials, production costs and sales bonus costs vary with the level of revenue. Actual variable costs per unit were in line with budgeted costs per unit. All other costs are assumed to be fixed.

2. Property plant and equipment

Carrying value	At 31 March 2021 $'million	At 31 March 2020 $'million
Land and buildings	784	806
Factory equipment - production	2,833	2,152
Laboratory equipment - research	83	80
Office equipment and furniture	54	62
Total	3,754	3,100

Depreciation expenses	Year ended 31 March 2021 $'million	Year ended 31 March 2020 $'million
Land and buildings	(22)	(22)
Factory equipment - production	(935)	(710)
Research equipment	(35)	(16)
Office equipment and furniture	(18)	(21)
Total depreciation	(1,010)	(769)

The following rates of depreciation are used for property, plant and equipment:
Land and buildings - 2% of cost

Factory equipment - 30% reducing balance
Research equipment - 20% reducing balance
Office equipment and furniture - 33% reducing balance

3. Intangible assets - capitalised development expenditure

	At 31 March 2021 $'million	At 31 March 2020 $'million
Cost	14,753	13,657
Accumulated amortisation	(8,253)	(6,781)
Carrying value	6,500	6,876
Amortisation during the year	(1,472)	(1,362)

Development expenditure on specific products is capitalised. Amortisation of the expenditure on each product begins during the year when the product is first manufactured for sale. Each product is amortised over its expected commercial life, which is generally 10 years.

The carrying values of the five largest products were as follows:

	31 March 2021 $'million
Pembrolumab (Cancer)	800
Abroxanib (Cancer)	900
Tiotryollate (Respiratory diseases)	1,200
Acidintutopium (Respiratory diseases)	1,200
Biopeptiline (Diabetes)	980

4. Goodwill

Goodwill relates to the acquisition of Pasir Bio in 2009. Goodwill is not amortised but the company considers whether the goodwill has become impaired on an annual basis.

5. Non-current liabilities

The long-term loan from the parent company is repayable in full in the year 2030. Interest on the loan is 2.5% per annum.

Long term borrowings from banks relates to finance raised from banks in Singapore. The loans are repayable in annual instalments over a period of ten years. The rate of interest on such loans is currently 3%.

END OF EXHIBIT 12

EXHIBIT 13

Email from John Fenwick, Biomore Pte Ltd's Financial accountant, to Ms Jing Yi Tan, Finance Director

Jing Yi Tang

From: John Fenwick <JFenwick@Biomore.sg>

Sent: 25 May 2021 9:03 pm

To: Jing Yi Tan *Finance Director* <JTan@Biomore.sg>

Subject: Impairment of Pembrolumab development costs

One of our competitors has just launched a drug that is believed to be more effective than Pembrolumab, one of our cancer inhibitor drugs. The competitor has priced their drug very highly, so there will still be some demand for Pembrolumab, but this is likely to be considerably less than it would have been had it not been for the competitor's drug. It is also expected that the remaining commercial life of the drug will now be five more years (instead of 8 more years).

Pembrolumab was launched two years ago. The costs of development of $1 billion were capitalised and commercial production began on 1 April 2019. It was assumed that the useful life of the drug would be 10 years. The carrying value at 31 March 2021 is therefore:

	$'000
Cost of development	1,000,000
Amortisation	(200,000)
Carrying value	800,000

After spending some time with the sales teams, and working on new forecasts for Pembrolumab, I believe that the value-in-use of our capitalised research for this drug has fallen to $28.9 million. It is not possible to ascertain the market value of this drug as there is no active market. Since the value-in-use is less than the carrying value, an impairment charge should be recognised in the financial statements as follows:

	$'000
Carrying value	800,000
Value in use	28,877
Impairment	771,123

My calculation of the value-in-use is based on the discounted forecast future profits for the drug. I used a discount rate of 2%. This is the OWP group cost of borrowing. Our cost of borrowing in Singapore is 3%, but I think it is more appropriate to use the group cost.

My calculation of the discounted profits (and therefore the value-in-use) is as follows:

	Year ended 31 March				
	2022 $'000	2023 $'000	2024 $'000	2025 $'000	2026 $'000
Sales	240,000	244,800	249,696	249,696	224,726
Manufacturing costs	(52,800)	(53,856)	(54,933)	(54,933)	(49,440)
Distribution costs	(21,120)	(21,542)	(21,973)	(21,973)	(19,776)
Amortisation	(160,000)	(160,000)	(160,000)	(160,000)	(160,000)
Profit before tax	6,080	9,402	12,790	12,790	(4,490)
Tax at 17%	(1,034)	(1,598)	(2,174)	(2,174)	763
Profit after tax	5,046	7,804	10,616	10,616	(3,727)
Discount factor at 2%	0.980	0.961	0.942	0.924	0.906
Present value	4,945	7,500	10,000	9,809	(3,377)
Net present value	28,877				

Please let me know if you approve of this impairment transaction, and if so, I will post the journal before we finalise the 2021 accounts. These accounts will be authorised for issue on 31 August 2021.

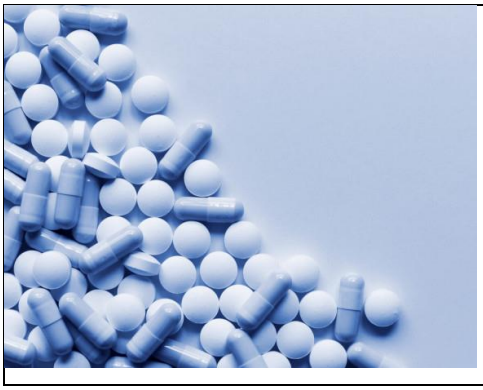
Regards

John

END OF EXHIBIT 13

EXHIBIT 14

Article from the Singapore Business Digest – 31 May 2021



Feeding off fear

The big Pharmaceuticals are bucking the trend and consistently outperforming global growth forecasts in these unprecedented times. How can this be possible when access to healthcare has been reduced in the pandemic? Some would call it profiteering…

The pandemic has reduced global economic growth, with several developed economies shrinking significantly including the US and Europe. APAC is not immune either, for example Singapore's economy is set to shrink by around 7% year-on-year in 2021. While Singapore's Biomore has yet to announce its results, it will no doubt reflect the trend in the global industry. How can companies such as Biomore in Singapore report such profits?

The impact the pandemic has had on global society and economics is so significant, that this has resulted in significant political pressure around the world for resolution. This has benefitted pharmaceutical companies in a number of ways.

Firstly, unprecedented amounts of public funds have been pouring into the private sector in the search for treatments and a cure. Funding has ranged from direct contributions, to partnerships with public sector organisations, to the provision of facilities for private sector companies to use. This has significantly reduced the cost of research for the big Pharma companies.

Secondly, steps have been taken to expedite the regulatory approval process globally. Accelerated approval pathways for clinical trials, simplified market authorisation and exemptions on emergency and compassionate grounds all speed up the process of launching viable treatments, and reduce the cost of meeting regulations.

Thirdly, the sheer volume of any treatments to be purchased is unparalleled, creating intense competition between governments vying to be first in the queue. For example, the USA purchased 500,000 doses of Remdevisir – virtually the entire global stock – for the US in one purchase in mid-2020. The price paid was over US$3,000 for a 5-day course, costing around US$10 per dose to make. This competitive market drives the prices of drugs sky high, and politicians are more than happy to commit public funds to purchase these drugs for political expediency. So, it is a tale of public sector funded research handed to the big pharma companies, who then sell the drugs back to governments at extortionate prices, paid for using the public purse. The taxpayer is lining the pockets of big pharmas more than ever!

Isn't it time the world learned, now more than ever, to put ethics ahead of profits?

END OF EXHIBIT 14

EXHIBIT 15

Financial assumptions email prepared by senior accountant relating to the cash flows from the proposed joint venture

To: Jing Yi Tan, Finance Director

From: C. Chua, Senior Accountant

Subject: CONFIDENTIAL: Abroxanib manufacturing appraisal - assumptions

Date: 29 May 2021

Dear Ms Tan

As discussed, please find my estimate of financial assumptions relevant to the manufacture of Abroxanib.

Background

Abroxanib is a new biopharmaceutical to be used in the treatment of lung cancer. Biomore have concluded all research and clinical trials, and recently obtained regulatory approval for production and distribution in APAC and the USA, with other regions expected to follow shortly. This process has taken nearly 10 years in total, giving Biomore 10 years left from 30 April 2021 on the exclusive patent before biosimilars can be produced by competitors.

Two routes to production are being considered:

- A joint venture with Armstrong Biologics Company (ABC)
- Biomore manufactures Abroxanib itself.

A non-standard, and slower, production process is needed, hence Biomore are considering joining forces with ABC, who has noted expertise in this area.

This paper sets out financial assumptions associated with each option.

Joint venture with ABC – working assumptions

- Financial assessment will be based on Net Present Value, using a cost of capital of 10%.
- Assume a 10-year horizon, until the exclusive patent expires.
- Assume Singapore dollars. Foreign exchange risk will be borne by Biomore's parent treasury function in the USA.
- Biomore would use ABC's existing manufacturing facilities in South Korea.
- JV initial investment: Biomore would provide the intellectual property, which it has spent around $900 million developing. ABC would provide the manufacturing facilities. The contribution to capital is assumed to be 50% by each party.
- Sales in the first year would be expected to be $350 million, growing at a compound annual rate of 25% in years 2 to 4, then 40% per annum for the next 3 years, then 30% for the remaining 3 years.
- Operating fixed costs of $75 million per year are initially anticipated. Annual fixed costs are expected to step up by $75 million when sales exceed $1 billion, and will rise by a further $75 million for each additional $1 billion of sales after this.
- Variable production costs as a percentage of sales will be 20% of sales in the first year. This percentage will remain constant, but will reduce by 5 percentage points in any year when sales exceed $2 billion.
- Taxation of 17% is paid in Singapore on Biomore's share of the joint venture profits earned, paid in the same year to which the profits relate. This can be assumed to be the only global corporation tax borne by Biomore in relation to the joint venture.
- Cash remittances from the joint venture would equate to 75% of the profits before tax for the first 9 years of the joint venture, with the balance returned at the end of the 10-year agreement period.

Biomore internal manufacture

- Financial assessment will be based on Net Present Value. An appropriate cost of capital is 10% to take into account the risk of this project.
- The sales and annual operating fixed costs profiles would be the same as in the joint venture.
- Initial investment of approximately $1,000 million (after all tax effects) would be required in customised new manufacturing facilities to manufacture using the non-standard process.
- Biomore would not have access to ABC's patented processes, thus slowing down production processes and making them less efficient. Variable costs are therefore expected to be 40% of sales for the term of the patent.
- Tax would be payable at a rate of 17% on the projected annual operating cashflows, payable in the same year.

If you have any questions, please do not hesitate to ask.

Best wishes

C. Chua

END OF EXHIBIT 15

EXHIBIT 16

Email from Dr Benjamin Ng to Jasmine Eng engaging Swan Chartered Accountants LLP to write a report on Biomore Pte Ltd

Benjamin Ng

From: Benjamin Ng <BNg@Biomore.sg>

Sent: 2 June 2021 13:21

To: Jasmine Eng <ENG_Jasmine@SwanCA.sg>

Subject: Engaging Swan Chartered Accountants LLP to write a report on Biomore Pte Ltd

Dear Mrs Eng,

It was nice to meet you this morning.

As I mentioned during our discussions this morning, we would like to seek your professional advice to identify and understand the complex strategic challenges that Biomore and the wider Biopharmaceuticals industry are facing. Mindful of this, I would like your firm's input on a range of matters. I would like you to present your views and recommendations in a formal report to me by 30/6/2021.

The elements that I wish to see in the report are set out in the attachment to this email (Exhibit 17).

END OF EXHIBIT 16

EXHIBIT 17

Biomore Pte Ltd: the requirements

You are a Manager working at Swan Chartered Accountants LLP (Swan). You have been tasked by Jasmine Eng, Vice President of Business Solutions at Swan to write a report for her review prior to submission to Dr Benjamin Ng, the Chief Executive Officer of Biomore Pte Ltd.

Your formal report should comprise the following four elements:

e-Exam Question Number	Requirement 1: An Executive Summary
2	**(a)** Write an executive summary to accompany your report. Your Executive Summary should allow Dr Ng to obtain a general understanding of what your report contains, including the key numbers. You should also include clearly stated assumptions, conclusions, and recommendations. While your Executive Summary should not contain any material or points that you have not discussed in the main body of the report, you are required to highlight any potential interactions between the individual standalone requirements below. **(10 marks)** **(Total: 10 marks)**

e-Exam Question Number	Requirement 2: Strategic analysis and performance evaluation
3	**(a)(i)** Estimate and comment on the profit variance caused by the coronavirus pandemic for the year ended 31 March 2021. State any assumptions you make. **(5 marks)**
	(a)(ii) Evaluate the performance of Biomore for the year ended 31 March 2021. **(10 marks)**
4	**(b)** Evaluate the calculation of the impairment of the capitalised development costs proposed by the financial accountant in relation to the drug Pembrolumab, and if necessary, compute the correct amount of impairment that should have been made (Exhibit 13). **(5 marks)**
5	**(c)** Discuss the tax relief available for Biomore's research and development costs with specific reference to the implications for the year of assessment 2022 due to the impairment proposed in Exhibit 13. **(5 marks)**

e-Exam Question Number	Requirement 2: Strategic analysis and performance evaluation
6	**(d)** Analyse the external environment (using PESTEL) and the internal strengths and weaknesses of Biomore in the light of the pandemic. Propose with justification one strategic option that the company should take in order to ensure its long run viability. **(10 marks)** Note: In order to ensure that you do not spend excessive time on this question, it is recommended that your answer should not discuss more than four environmental factors, not more than three strengths and not more than three weaknesses. **(Total: 35 marks)**

e-Exam Question Number	Requirement 3: Strategic options
7	**(a)** Explain how Biomore can use blockchain technology for order fulfilment to support its supply chain and distribution operations. **(5 marks)**
8	**(b)** Using the information in Exhibits 9 and 15, discuss the advantages and risks of entering into the joint venture with Armstrong Biologics Co. **(10 marks)**
9	**(c)** Using the information in Exhibit 15, estimate the projected cash flows accruing to Biomore from the joint venture and compare these to the cash flows that would arise if Biomore develops the technology in house. **(11 marks)** On the basis of your discussion in requirements **3(b)** and **3(c)**, recommend whether Biomore should enter into a joint venture with Armstrong Biologics Company. **(4 marks)** **(Total: 30 marks)**

e-Exam Question Number	Requirement 4: Strategic change and ethical considerations
10	**(a)** A restructuring proposal was presented in Exhibit 10. **(i)** Evaluate the restructuring proposal from the perspective of the shareholders of Biomore. **(5 marks)** **(ii)** Analyse the internal forces that will resist this change and suggest approaches to overcome this resistance. **(5 marks)**
11	**(b)** Discuss the financial reporting implications of the proposed restructuring of the discovery department (Exhibit 10) for the financial statements for the years ended 31 March 2021 and 31 March 2022. Note: Assume that the restructuring is announced to those affected before the financial statements for the year ended 31 March 2021 are authorised for issue. **(5 marks)**
12	**(c)** Discuss the method and contents of any response Biomore should make to the accusations made in the magazine article (Exhibit 14). **(10 marks)** **(Total: 25 marks)**

END OF EXHIBIT 17

END OF PAPER