



Singapore CA Qualification (Foundation) Examination 12 June 2020 Accounting for Decision Making

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 **FIFTEEN (15)** 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. You are allowed to have only the following materials with you at your 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 SAC'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. Use of these devices, or, the sight or hearing of these devices, will be flagged as integrity breaches and investigated, unless it is for the purpose as stated under paragraph 6 below.
- 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. Should you encounter any issues during the examination, please contact any of these four (4) hotlines for an invigilator to assist you. The hotlines will be operational from one hour before the scheduled start time of the examination to one hour after the scheduled end time of the examination.

Name of invigilator	Hotline number
N.A.	N.A.

7. This examination paper and all video recordings of this exam are the property of the Singapore Accountancy Commission.





MODULE-SPECIFIC INSTRUCTIONS:

- 8. Assume that all dollar amounts are in Singapore dollar (S\$) unless otherwise stated.
- 9. All computations should be presented up to **TWO (2)** decimal places, unless otherwise stated.

Examplify Question Number	Compulsory pre-exam steps to be recorded in video
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Before you begin this exam, you are to perform a 360 degrees environment scan (via webcam), including a view of your table top, so that the location where you are taking the exam is being recorded in the video.

Next, show each side of your A4-sized double-sided cheat sheet to the webcam so that your cheat sheet is being recorded in the video.

Lastly, if you are using a calculator and a blank sheet of A4-sized scratch paper, show the calculator and both sides of the blank scratch paper to the webcam so that these items will be recorded in the video.

Should you encounter any issues during the examination, please contact any of these four (4) hotlines for an invigilator to assist you.

Name of invigilator	Hotline number
N.A.	N.A.

Question 1 - (a), (b) and (c)

Giovanni Catering Ltd supplies ingredients to large restaurant chains.

The new and growing Pizza division reported the following budgeted and actual results for one month:

	Original budget	Actual		
Sales of	10,000 boxes for \$25 per box	11,000 boxes sold for \$264,000		
passata				
Sales of	8,000 packets at \$30 per	7,500 packets sold for		
specialist pasta	packet	\$236,250		
Ingredients	35,000 kgs at an average price	20,000 kgs of tomatoes at \$6		
(materials)	of \$4 per kg (of which 50% by	16,000 kgs other ingredients for		
	weight is tomatoes at \$5 per kg)	an average cost of \$1 per kg		
Labour	600 hours for chefs at \$70 per	650 hours for chefs at a cost of		
	hour	\$74 an hour		
	1,200 hours of support staff at	1,050 hours of support staff at		
	\$28 per hour	\$28 per hour		
	Each spent half their time	Each spent half their time		
	working on passata and half	working on passata and half		
	their time on pasta	their time on pasta		
Other variable	Budgeted at \$15 per labour	Actual cost \$12 per actual		
costs	hour	labour hour		

Examplify Question Number	Que	stion 1 required:
2	(a)	Calculate the budgeted and actual contribution for the month. (8.5 marks)
3	(b)	Calculate the sales price and sales volume variances for each product and in total. Assume tomatoes relate solely to passata, and other ingredients relate solely to pasta. You should value sales volume variances at standard contribution per unit. (10.5 marks)
4	(c)	Offer possible explanations for each sales price and sales volume variance. Note: Further calculations are NOT required. (6 marks) (Total: 25 marks)

Question 2 – (a), (b), (c) and (d)

Bedok Nest Ltd (BNL) makes luxury suites of furniture. It is considering launching a new range of furniture, and based on market research has estimated the following:

	Armchair	Sofa	Coffee table
Selling price	\$3,200	\$3,600	\$2,800
Units	420	400	380

Manufacturing costs per unit are estimated to be:

	Armchair	Sofa	Coffee table
Material	\$400	\$500	\$300
Labour	\$900	\$975	\$800
Variable overhead	\$220	\$245	\$190
Fixed overhead	\$35	\$40	\$27

Labour costs are 40% variable, and 60% fixed. Fixed overheads are absorbed on the basis of the number of units produced. All fixed costs are incremental to the decision of whether or not to launch the new range – If any of the new range is produced then all of the fixed costs would be incurred for the whole range.

Before committing to production, BNL wants to consider whether or not they are likely to break-even.

Assume products are sold in the constant mix implied by the budgeted volumes.

Examplify Question Number	Que	stion 2 required:
5	(a)	Calculate the weighted average contribution margin ratio to 4 decimal places. (8 marks)
6	(b)	Calculate the total break-even revenue, assuming that the products are sold in a constant sales mix. (7 marks)
7	(c)	Explain, by showing relevant computations, how your answer to part (b) would change if the constant sales mix assumption is lifted. (6 marks)
8	(d)	Identify TWO key assumptions that must be made in multi- product break-even analysis, and discuss how realistic they are in this case. (4 marks) (Total: 25 marks)

Question 3 – (a), (b), (c) and (d)

Sunnyday Shades Ltd (SSL) makes sunglasses. It has 2 operating divisions, each run by a divisional manager. The Manufacturing division makes 3 types of sunglasses: Sports, Fashion, and Children. The budget for the Manufacturing division for the coming year is designed to satisfy market demand fully and is as follows:

	Sports	Fashion	Children
Budgeted external sales	140,000	40,000	120,000
Selling price per unit	\$150	\$250	\$50
Variable cost per unit	\$100	\$150	\$40

Products are interchangeable for production decisions – each unit uses the same amount of production capacity. The total capacity for the Manufacturing division is 320,000 units.

The second operating division is called the Soundz division, and takes fashionable sunglasses and adds a small Bluetooth speaker system into the arms of the glasses that plays music directly into the ears of the listener. Both divisions have complete autonomy as to who they buy from or sell to.

The Soundz division has asked if the Manufacturing division would like to supply Fashion sunglasses to them for conversion into Soundz sunglasses for onwards sale. They currently obtain an equivalent to Fashion sunglasses from an external local supplier for \$190 a pair. They have asked for two quotes: one for 20,000 pairs of Fashion sunglasses and the other for 35,000 pairs.

The Manufacturing division has an existing transfer pricing policy of charging market price less 20% for internal sales.

Examplify Question Number	Que	stion 3 required:
9	(a)	Under the current transfer pricing policy, what decision would the Soundz divisional manager make? (3 marks)
10	(b)	Would the decision in part (a) be optimal for SSL as a group? For the quote of 20,000 Fashion sunglasses, compute and explain the range of transfer prices that would lead to the maximisation of SSL's group profit. (8 marks)
11	(c)	Would the decision in part (a) be optimal for SSL as a group? For the quote of 35,000 Fashion sunglasses, compute and explain the range of transfer prices that would lead to the maximisation of SSL's group profit. (8 marks)
12	(d)	Explain THREE non-financial considerations when deciding whether to source from internal or external suppliers. (6 marks) (Total: 25 marks)

Question 4 - (a), (b), (c) and (d)

Accessorcycle Ltd (AL) produces a range of clothing and accessories for cyclists, aimed at the urban commuter. It operates 3 divisions: Clothing, Lights, and Helmets. The Board is meeting to examine the forecast for next year:

	Clothing	Lights	Helmets	Total
	\$'000	\$'000	\$'000	\$'000
Sales	700	300	300	1,300
Materials	100	120	30	
Labour	175	80	20	
Variable overhead	100	100	60	
Factory fixed costs	200	100	125	
Net profit	125	(100)	65	90

Factory fixed costs include an element of factory rent, which is absorbed on the basis of 75% of material cost. AL is locked into a long-term lease on the factory. Other fixed costs relate specifically to the division concerned and would be avoided if that division is closed.

Labour includes a fixed and a variable element (50:50). The fixed element represents salaried factory staff that are needed due to the size of the factory, and include, for example, the salary of the factory manager and security guards.

The Operations Director commented, "We should close the unprofitable 'Lights' division to boost our group profits – that's our job after all."

The Marketing Director is less sure – "There's more to performance than simply creating profits... let's not be hasty!"

Examplify Question Number	Ques	stion 4 required:
13	(a)	Determine based on the available information if the Lights division should be closed. (7 marks)
14	(b)	Discuss THREE other factors that should be considered prior to making a final decision. (6 marks)
15	(c)	Explain the significance of the Marketing Director's comments and offer TWO examples where good performance coincides with producing a financial loss. (4 marks)
16	(d)	For EACH perspective of the balanced scorecard, identify and justify ONE performance measure that could be useful for AL. (8 marks) (Total: 25 marks)
		END OF PAPER

Appendix A

Standardised Common Content Reference Material

Accounting for Decision Making

(For Jun 2020 Exam, last updated: 20 May 2020)

Important notes

- 1. This Standardised Common Content Reference Material (Reference Material) was first published on the SAC website on 4 May 2020.
- 2. The Reference Material was updated and published on SAC website on:
 - 20 May 2020 Formulae for sales price and sales volume variances
- 3. The latest Reference Material will be incorporated into the examination question paper as an Appendix, and will be uploaded within your Exam in the e-exam software, Examplify.

Performance measurement and control

- Flexible budget variances
 - Direct Material
 - Direct material cost variance = Direct material price variance + Direct material usage variance
 - Material price variance = (AP SP) × AQ
 - Material usage variance = (AQ SQ) × SP

SP = Standard Price, AP = Actual Price, AQ = Actual Quantity, SQ = Standard Quantity

- Labour
 - Direct labour cost variance = Direct labour rate variance + Direct labour efficiency variance
 - Direct Labour Rate Variance = (AR SR) × AH
 - Direct Labour Efficiency Variance = (AH SH) × SR

SR = Standard Rate, AR = Actual Rate, AH = Actual Hour incurred, SH = Standard Hours required

- Variable Overhead
 - Variable overhead cost variance = Variable overhead spending variance + Variable overhead efficiency
 - Variable overhead spending variance = (AVOH SVOH) × AQ
 - Variable overhead efficiency variance = (SQ AQ) × SVOH

AVOH = Actual Variable Overhead Rate, SVOH = Standard Variable Overhead Rate, AQ = Actual Quantity incurred, SQ = Standard Quantity

- Fixed Overhead
 - Fixed Overhead production volume variance = (Actual output Budget output) X Standard fixed overhead rate
 - Fixed Overhead spending variance =Actual Fixed Overhead incurred – Budgeted Fixed Overhead
- Revenue
 - Sales price variance = (ASP SSP) × ASQ
 - Sales volume variance = (ASQ BSQ) × SCM
 - Sales quantity variance = (Total actual sales quantity × budgeted sale mix of the product – BSQ) × SCM
 - Sales mix variance = (ASQ Total actual sales quantity × budgeted sale mix of the product) × SCM

SSP = Standard selling price, ASP = Actual selling price, ASQ = Actual sales quantity, BSQ = Budgeted sales quantity, SCM = Standard contribution margin per unit

- Return on Investment (ROI)
 - = Profit after tax ÷ Net Investment
 - = (Profit after tax ÷ sales) X (Sales ÷ Net Investment)
 - = Profit margin X Investment turnover
- Residual Income (RI) = Profit (Required rate of return) × Investment
- Economic value added (EVA) = Adjusted after tax profits (Cost of capital × Adjusted Investment)
- Cost of Quality
 - o Prevention costs
 - Appraisal costs
 - Internal failure costs
 - External failure costs

Strategic tools to determine the strategy and competitive position of the business:

Porter's generic strategies

- 1) Cost leadership strategy
- 2) Product differentiation strategy
- 3) Cost focus strategy
- 4) Differentiation focus strategy

Porter's five forces

- 1) Competition in the industry
- 2) Potential of new entrants
- 3) Power of suppliers
- 4) Power of customers
- 5) Threat of substitute products

SWOT Analysis

- 1) Strengths
- 2) Weaknesses
- 3) Opportunities
- 4) Threats

PESTEL

- 1) Political
- 2) Economic
- 3) Social
- 4) Technological
- 5) Environment
- 6) Legal

Decision Making

- Contribution margin = Selling Price Variable cost
- Contribution margin ratio = Contribution margin ÷ sales revenue
- Cost volume profit analysis
 - Breakeven in quantity = Fixed Overhead ÷ Contribution margin per unit
 - Breakeven in revenue= (Fixed Overhead ÷ Contribution margin per unit) × selling price
- Minimum Transfer Price = Variable Cost + Opportunity cost

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.
Determine	Ascertain or conclude after analysis and evaluation the most appropriate course of action or most correct answer from a range of viable alternatives.
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.
Identify	Identify is similar to list , but requires you to also provide an explanation as to why the item/s that you have identified is/are relevant to the facts given in the question.
Justify	Whenever you see the word justify , you <u>must</u> provide reasons for your answer, in other words, provide support for your argument or conclusion. If you fail to justify your answer, you will lose valuable marks. Justify is similar to defend .