

**Singapore CA Qualification (Foundation) Examination****14 June 2021****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 **THIRTEEN (13)** pages (including this instruction sheet and Appendix A). 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.
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 and all video recordings of this exam are the property of the Singapore Accountancy Commission.

**MODULE-SPECIFIC INSTRUCTIONS:**

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

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

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 6100 0516

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

### Question 1 – (a), (b), (c) and (d)

Plan2XL Ltd (PTE) is a firm of management consultants providing strategic management advice specializing in change management. It has a wide range of clients in 4 different industries: Pharmaceutical, Electronics, Biotech, and Oil.

Currently, PTE has used a single cost rate of \$400 per chargeable consultant hour for in-house profit reporting and for preparing quotations for customers. PTE employs 10 full-time management consultants who each deliver 1,500 chargeable consultant hours in a year and are each paid \$120,000.

Other client-specific costs for the year are analysed as follows:

	<b>\$'000</b>
Telephone support	2,000
Report production	3,000
Client meetings	560

PTE is considering implementing Activity-Based Costing, and has gathered the following information:

	<b>Pharma</b>	<b>Electronics</b>	<b>Biotech</b>	<b>Oil</b>	<b>Total</b>
Number of administrative telephone calls (000's)	40	960	100	500	1,600
Number of printed reports ('000)	6	30	8	16	60
Number of meetings ('000)	14	18	4	20	56
Chargeable consultant hours ('000)	4	6	2	3	15
Revenue for 20x5 (\$'000)	2,000	6,000	1,700	2,400	12,100

Telephone support costs relate to the costs of running a call centre for administrative support offered to clients (such as invoicing and billing queries) - this is not part of the chargeable time provided by consultants. The call centre employs 43 people, working 40 hours per week for an average of 50 weeks a year.

**e-Exam  
Question  
Number**

**Question 1 required:**

- 2**      **(a)**      Calculate the profit margin percentage (to the nearest 0.1%) for each industry category using the current costing system.  
**(5 marks)**
- 3**      **(b)**      Calculate the profit margin percentage (to the nearest 0.1%) for each industry category using Activity-Based Costing.  
**(13 marks)**
- 4**      **(c)**      Describe TWO possible implications for the business if it continues using the current system based on the difference in profit margin percentage calculated in **part (a)** and **(b)** for Pharmaceutical's clients.  
**(4 marks)**

Further research has shown that the average time spent per administrative phone call to a Pharmaceutical's client is 5 minutes.

**e-Exam  
Question  
Number**

**Question 1 required:**

- 5**      **(d)**      Calculate the revised profit margin percentage for Pharmaceutical's clients using Time Driven Activity-Based Costing to revise the telephone support costs.  
**(3 marks)**  
**(Total: 25 marks)**

## **Question 2 – (a) and (b)**

Malvern Sport Ltd (MSL) makes hand-built, high quality sports cars. They are built around the exact dimensions of the purchaser. MSL cars have a world class reputation for quality, speed, style and comfort, and commands a very high purchase price. At the monthly Board meeting, 2 key agenda items are being discussed:

### **New IT system**

The Board of MSL are discussing their plans in investing in a new 'Enterprise Resource Planning System' – an organisation-wide system with a common data warehouse. It will replace most of the current IT systems in use in the business. It is a significant undertaking but one which the Board hopes will revolutionise business processes and performance. The project steering committee is led by the IT Director.

The Head of Finance offers to transfer a qualified accountant as a full-time member of the project team. The IT Director responds: 'That's kind, thank you. However, I don't think full-time member will be necessary. It won't take that long to record what we are spending.' The Head of Finance comments: 'The role would be one of a management accountant not merely recording financial transactions.' The two agree to discuss this matter further separately.

### **Sourcing key components:**

The Procurement Manager presents an idea to change where certain key engine components are sourced from. 'Currently, we outsource several key components for specialist manufacture at a very high cost. I propose we source these components from the mass market from car industry volume suppliers. They benefit from economies of scale as their parts are purchased by all the large manufacturers, and so their prices are a fraction of the cost of the current suppliers. Lower cost equals more profit, so it's an obvious plan.'

The Production Director questioned the reliability and performance of the mass-market components. The Chairman noted – 'If we have any problems in that regard, we have a whole department of creative accountants. I'm sure we can present any statistics in the best light possible to help preserve our share price.'

**e-Exam  
Question  
Number**

**Question 2 required:**

**6**

**(a)** In relation to the IT project:

**(i)** Explain the difference between management accounting and financial accounting.

**(2 marks)**

**(ii)** Discuss TWO possible ways that a management accountant can add value to the project team, beyond recording financial transactions.

**(4 marks)**

**(iii)** Explain the 'Quality, Cost and Time triangle' in project management. Illustrate how each constraint affects the other two in the context of the IT project being discussed.

**(7 marks)**

**7**

**(b)** In relation to the Procurement Manager's suggestion:

**(i)** Identify the generic competitive strategy of the company compared to the Procurement Director's suggestion. Recommend, with justification, whether you think the idea to source mass market components to reduce cost should be adopted.

**(6 marks)**

**(ii)** Discuss the ethical implications of the Chairman's suggestion. Recommend with justification how the Head of Finance should respond.

**(6 marks)**

**(Total: 25 marks)**

### Question 3 – (a), (b), (c) and (d)

Souschef Kitchen Utensils Ltd (SKU) makes kitchen equipment. One division produces the ‘Spinner’ – a salad spinner that dries salad by manually spinning it in a drum with holes in the sides, causing water to be expelled.

The budget for the 20x5 year includes:

- Production of 36,000 units
- 6 direct workers, each paid an average wage of \$48,000 a year.
- 18,000kgs of plastic in total is included in the 36,000 finished units. 10% of the input plastic is expected to be lost in the production process as normal loss. The cost of the plastic input into the process is \$7.20 per kg.
- Variable production overheads of \$108,000
- Fixed production overheads of \$180,000, incurred evenly over the year.
- Selling and distribution costs:
  - \$120,000 for the year fixed and incurred evenly over the year
  - Variable expenses of 15% of revenue

The selling price is \$35 per unit.

Production and sales for January and February 20x5 were:

(units)	January	February
Production	2,000	3,200
Sales	1,500	3,400

All costs and prices were as budgeted, with the exception of variable selling and distribution costs, which yielded variances of \$200 (favourable) in January, and \$150 (unfavourable) in February.

There were no opening inventories on 1 January 20x5.



**e-Exam  
Question  
Number**

**Question 3 required:**

- 8**      **(a)**      Prepare a standard production cost card per unit for the Spinner assuming absorption costing principles.  
**(6 marks)**
- 9**      **(b)**      Calculate profit for January and February assuming absorption costing principles, including showing separately any monthly correction for over or under absorption. Assume standard costs are used for inventory valuation, and any difference between applied and actual fixed production overheads are closed off to the cost of goods sold in the month incurred.  
**(13 marks)**
- 10**      **(c)**      Using your answer in **part (b)** as a starting point, calculate profit for January and February assuming variable costing principles.  
**(4 marks)**
- 11**      **(d)**      Explain why the difference in reported profits has occurred in your answers to **part (b)** and **(c)**.  
**(2 marks)**
- (Total: 25 marks)**

#### Question 4 – (a), (b) and (c)

Cycle Bling Ltd (CBL) produces accessories for cyclists. It is preparing annual budgets for the 20x6 year for the Helmets division. There are 3 types of cycles helmet: Men's (annual demand 40,000), Women's (annual demand 35,000) and Children's (annual demand 55,000). All sales and production arise evenly over the year. The factory could in theory currently produce 150,000 men's helmets, 150,000 women's helmets or 75,000 children's helmets in a year. There are plans to expand the factory significantly in 20x7.

Opening inventory for the 20x6 years will consist of 25,000 men's helmets, 10,000 women's helmets and 25,000 children's helmets. Closing inventory is planned to be half of these amounts.

Each helmet consists of plastic at a cost of \$20 per kg. In addition, the children's helmet includes flashing lights for improved visibility. The lights cost \$15 per helmet to purchase. All materials suppliers extend 2 month's credit to CBL, which it takes full advantage of.

The amount of materials in each finished helmet is provided below:

	<b>Men's</b>	<b>Women's</b>	<b>Children's</b>
Plastic (kg)	0.1	0.1	0.08
Flashing lights kit (number)			1

The company has a policy of holding sufficient closing raw materials inventory to manufacture 30% of the following year's production. Production of all helmets is predicted to increase by 10% in 20x7 as compared to 20x6.

All helmets require the same amount of direct labour – 6 minutes per helmet. Each employee delivers around 25 hours productive time per week for 48 weeks of the year. The company has a policy of employing only full-time employees, and no overtime is worked. Labour is paid a wage of \$21,000 a year. One supervisor can monitor a maximum of 6 direct workers and earns \$32,000 per year.

Men's helmets sell for an average of \$100 per helmet, women's for \$90 per helmet and children's \$60 per helmet. CBL extends one month's credit to its customers, which are mainly cycle shops.

Other variable production costs amount to \$30 per helmet and are paid in the month incurred. Other costs and expenses amount to \$500,000 for the year spread evenly (including \$200,000 depreciation on machinery and equipment) and is paid in the month incurred.

A dividend of \$1m is planned to be paid in November 20x6, with investment in equipment of \$1.2m planned for December in time for the planned expansion in 20x7. This will be partly financed by increased long-term borrowings of \$1m planned for December 20x6.

Receivables and Trade payables as at 31.12.20x5 will be \$400,000 and \$200,000 respectively. The overdraft will be \$2.5m on 31.12.20x5.

**e-Exam  
Question  
Number**

**Question 4 required:**

- 12**      **(a)**      Determine whether CBL is able to meet the 20x6 projected helmet demand given its production capacity.  
  
**(4 marks)**
- 13**      **(b)**      Prepare the following operational budgets. (Note: Volumes should be calculated to the nearest whole number).
- (i)**      Sales (volumes and dollars)  
  
**(2 marks)**
- (ii)**     Production (volume)  
  
**(3 marks)**
- (iii)**    Materials purchases (volumes and dollars)  
  
**(6 marks)**
- (iv)**    Labour (volumes and dollars)  
  
**(4 marks)**
- 14**      **(c)**      Prepare a cash budget for inclusion in the master budget. (Note: A statutory format is not required).  
  
**(6 marks)**  
**(Total: 25 marks)**

**END OF PAPER**

## Appendix A – Common verbs used by the Examiners

Verb	Description
<b>Calculate / Compute</b>	Do the number crunching and derive the correct answer. Make sure that you write down your workings and crosscheck your numbers.
<b>Describe</b>	Describe requires you to provide the characteristics and features of an item or situation. For instance, “Describe the audit procedures to verify ...” requires you to state the specific audit procedure/s that you would use without going into step-by-step detail of how to perform that procedure.
<b>Determine</b>	Ascertain or conclude after analysis and evaluation the most appropriate course of action or most correct answer from a range of viable alternatives.
<b>Discuss</b>	<b>Discuss</b> 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 <b>discuss</b> is placed near the front of the instruction, then it requires you to provide an answer that is similar to <b>explain</b> , but addresses both the for and against arguments.
<b>Explain</b>	<b>Explain</b> requires you to write at least several sentences conveying how you have <b>analysed</b> the information in a way that a layperson can easily understand the concept or grasp the technical issue at hand.
<b>Identify</b>	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.
<b>Illustrate / Give examples</b>	Illustrate requires you to provide an example, either from the facts given, a real-life example, or a made-up example to illustrate the point you are trying to make. Illustrate and Demonstrate have similarities.
<b>Prepare</b>	<b>Prepare</b> requires you to produce your answer using a specific format.
<b>Recommend</b>	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 analyse and synthesis 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.