



**FACULTY OF BUSINESS**

**FINAL EXAMINATION**

Student ID (in Figures) : 

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Student ID (in Words) : \_\_\_\_\_  
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Course Code & Name : **ACC3223 STRATEGIC MANAGERIAL ACCOUNTING**  
Semester & Year : MAY – AUGUST 2023  
Lecturer/Examiner : JAMES LIOW  
Duration : 3 Hours

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**INSTRUCTIONS TO CANDIDATES**

1. This question paper consists of 1 part:  
**PART A (100 marks) : Answer FOUR (4) compulsory questions. Answers are to be written in the Answer Booklet provided.**
2. Candidates are not allowed to bring any unauthorized materials except writing equipment into the Examination Hall. Electronic dictionaries are strictly prohibited.
3. This question paper must be submitted along with all used and/or unused rough papers and/or graph paper (if any). Candidates are NOT allowed to take any examination materials out of the examination hall.
4. Only ballpoint pens are allowed to be used in answering the questions, with the exception of multiple choice questions, where 2B pencils are to be used.

**WARNING:** The University Examination Board (UEB) of BERJAYA University College regards cheating as a most serious offence and will not hesitate to mete out the appropriate punitive actions according to the severity of the offence committed, and in accordance with the clauses stipulated in the Students' Handbook, up to and including expulsion from BERJAYA University College.

**Total Number of pages = 8 (Including the cover page)**

**PART A : COMPULSORY QUESTIONS (100 MARKS)**

**INSTRUCTION (S) :** There are **FOUR (4)** compulsory questions in this section. Answer **ALL** questions. Write your answers in the Answer Booklet(s) provided.

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**QUESTION 1**

**Section A**

Chin Hin Bhd (CHB) consists of several autonomous divisions, including Division X and Division Y. Each month, Division Y purchases 50,000 kilograms of a chemical product ("Chemical A") from Division X as a raw material in the manufacture of one of its products.

Division X's manager set the transfer price to Division Y at the same price they charge to external customers at RM95.00 per kg. Manager at the Division Y is unhappy with that decision and because of that Division Y has been making losses. They claim that Division X should have charged a lower price than its external customers as the plant still have the spare capacity to produce for Division Y.

The following are the information for both the divisions:

	<b>Division X (RM)</b>	<b>Division Y (RM)</b>
Selling price	95.00	175.00
Variable costs:		
- Direct materials	32.00	20.00
- Direct labour	15.00	12.00
- Factory overheads	23.00	15.00
- Selling and distribution costs	12.00	36.00
Annual fixed selling and distribution costs (RM)	500,000	100,000
Annual external demand (kg)	200,000	50,000
Capacity of plant (kg)	260,000	60,000

**Required**

- Under the current transfer pricing system, prepare a profit statement showing the contribution margin and profit for each of the divisions and for CHB as a whole. *(The sales and costs figures should be split into external sales and inter-divisional transfers, where appropriate).* (4 marks)
- If the two divisions can agree on a transfer price, propose the minimum transfer price that Division X would agree to charge. (3 marks)

c) Prepare a profit statement showing the contribution margin and profit for each of the divisions and for CHB as a whole assuming the two divisions can agree on a transfer price based on item (b) above. (4 marks)

d) Justify whether the two divisions and CHB as a whole would accept this new arrangement. (3 marks)

e) Assuming Division X has no spare capacity to produce and is required by CHB to release the capacity for Division Y, determine the minimum transfer price to be charged to Division Y. (2 marks)  
(Section A: 16 marks)

**Section B**

Quality-One International Sdn Bhd (QISB) started a quality improvement programme in April 2023. At the end of last quarter of 2023, management of the company desires to assess the financial impact of quality improvement programme.

QISB has classified the following cost of quality:

Type of Costs	Description
Prevention	<ul style="list-style-type: none"> <li>- Established product specifications in order to improve and increase the value of the product quality.</li> <li>- Required employees to undergo minimum of 128 hours of training to ensure they possessed with the up-to-date knowledge and technology.</li> <li>- Carry out development of quality management system of all processes at the manufacturing plant.</li> </ul>
Appraisal	<ul style="list-style-type: none"> <li>- Conduct supplier assessments to ensure raw materials are received without defects.</li> <li>- Inspect finished goods for any damage before delivering to customers.</li> </ul>
Internal failure	<ul style="list-style-type: none"> <li>- Machine breakdown due to improper maintenance.</li> <li>- Product rework that fails to meet certain standard.</li> </ul>
External failure	<ul style="list-style-type: none"> <li>- Customer support to handle customers' complaints and to ensure sales is not lost through repeat sales.</li> <li>- Product returns/rejects due to shipping damage or defective parts.</li> </ul>

Statistics of the 3 quarters are follows:

Cost Categories	2 <sup>nd</sup> quarter RM'000	3 <sup>rd</sup> Quarter RM'000	4 <sup>th</sup> Quarter RM'000
Product specifications	66	74	83
Employee training	393	431	477
Sales lost	1,476	1,209	993
Sales returns	807	632	491
Inspection of finished goods	42	47	53
Product rework	474	380	300
Quality management system	186	195	206
Machine breakdown	528	435	357
Supplier assessments	48	51	56
Customer complaint	117	104	90

Additional information:

- (i) QISB undertook a new product specification development to increase the value of the product quality at a cost of RM35,000 at the last quarter.
- (ii) Total sales recorded for the quarter is RM18.0 million.

**Required**

- a) Produce a Cost of Quality (COQ) Report for QISB showing total quality costs for each category, total costs of conformance and total costs of non-conformance of the 3 quarters and in total. (4 marks)
- b) Compute the following:
  - (i) Total costs of quality as a percentage of sales
  - (ii) Ratio of costs of conformance to total costs of quality
  - (iii) Ratio of costs of non-conformance to total costs of quality
 (3 marks)
- c) Comment how the relationship between conformance and non-conformance costs would support the development of a TQM culture at QISB and way to improve the overall quality costs. (2 marks)

(Section B: 9 marks)

**[Total 25 marks]**

## QUESTION 2

Nam Fatt Bhd is a divisionalised company. Decisions about bonuses and promotions for divisional managers are at the discretion of the company's directors, but are significantly influenced by each division's return on investment (ROI). For the purposes of ROI calculations, property, plant and equipment are measured at their net book value at the end of the financial year.

The following forecasts are available for the company's three divisions for the year ended 31 December 2022:

	Sales (RM)	Net profit (RM)	Capital (RM)
Division A	600,000	125,000	1,100,000
Division B	500,000	80,000	900,000
Division C	200,000	37,000	210,000

After the above forecasts were prepared, one possible extra project was identified for each division. These projects would commence on 1 January 2022, and each divisional manager must decide by that date as to whether or not to accept his or her division's possible extra project. Details of these possible extra projects (which would continue for several years if accepted) are as follows:

### Division A

Division A could increase its market share. This would result in extra sales of RM160,000 in 2022 and RM200,000 in each subsequent year. The profit margin on sales would be 19%. The only additional investment required would be an increase of RM225,000 per annum in the division's working capital.

### Division B

Division B could invest RM200,000 in new technology which would improve the productivity of the division's manufacturing facilities. This extra investment would be depreciated on a straight-line basis over an 8-year life, and an additional investment of RM60,000 each year in the division's working capital would also be required. The productivity improvement would result in increased sales of RM130,000 in 2022 and RM140,000 in each year thereafter. The profit margin on sales would be 30%, before taking account of depreciation.

### Division C

Division C could invest RM40,000 in a new delivery vehicle, which would be depreciated at a rate of 30% per annum on a diminishing balance basis. Annual sales would increase by RM64,000, and the profit margin on sales would be 25% before depreciation. An additional working capital investment of RM10,000 each year would also be required.

### Required

- a) Calculate the return on investment of the 3 divisions based on the forecasted results. (3 marks)

- b) Calculate the return on investment for 2022 and 2023 of the 3 divisions based on the extra projects. (10 marks)
- c) Explain whether each divisional manager is likely to accept his or her division's proposed extra projects based on item (b) above and what decision would be in the best interests of the company's shareholders in each case. (7 marks)
- d) Assuming that Nam Fatt Bhd uses residual income (RI) to evaluate performance and desires a minimum 15% return per annum on invested capital. Compute the residual income for 2022 of the 3 divisions of the extra projects. (3 marks)
- e) Based on the RI calculated in item (d), comment on the performance of the 3 divisions. (2 marks)
- [Total 25 marks]**

### QUESTION 3

Sigma Bhd produces 3 products, Alpha, Kappa and Zeta. All products are produced using the same materials, machinery and a skilled labour force. The details of the budgeted selling price and cost price are shown below:

	Alpha (RM)	Kappa (RM)	Zeta (RM)
Selling price	147.00	185.00	165.00
Direct material	35.00	50.00	65.00
Direct labour	14.00	15.00	16.00
Variable costs	13.00	11.00	19.00
Fixed costs	12.00	13.00	18.00
Total costs	74.00	89.00	118.00
<b>Profit</b>	<b>73.00</b>	<b>96.00</b>	<b>47.00</b>

The machine required and the budgeted production units are as follows:

	Alpha	Kappa	Zeta
Production (units)	2,000	1,500	1,000
Required machine hours:			
Machine 1	2.5	2.0	1.0
Machine 2	0.5	1.0	1.5
Machine 3	1.0	1.5	0.5

The maximum capacity of the machine hours is 6,000 hours for each machine.

#### **Required**

- a) Identify which machine produces the bottleneck and calculate the shortage or excess of machine hours. (6 marks)

- b) Calculate the total cost per factory hours (*round to 2 decimal places*). (4 marks)
- c) Calculate the throughput accounting ratio for the three products (*round to 2 decimal places*) and rank the profitability of the three products. (6 marks)
- d) Using throughput accounting that you have calculated in part (c), prepare the optimum production units given the bottleneck hours. (5 marks)
- e) Based on the optimum production units in part (d), calculate the maximum profit of Sigma Bhd. (4 marks)
- [Total 25 marks]**

#### **QUESTION 4**

Lost Peak Resort (LPR) is located at Janda Baik, Pahang and has been for many years a small, family-owned resort serving campers from nearby towns.

LPR was recently acquired by Western Resorts (WR), a major resort operator. The new owners have plans to upgrade the resort into a destination resort for vacationers. As part of this plan, the new owners would like to make major improvements in the Jungle Cafe, the resort's on-the-hill cafeteria. The menu at the Jungle Cafe is very limited – hamburgers, hot dogs, sandwiches, nasi lemak, mee goreng, and packaged snacks. With little competition, the previous owners of the resort had felt no urgency to upgrade the food service at the cafe. If vacationers want lunch in the jungle, the only alternatives are the Jungle Cafe or a pack lunch brought from home.

As part of the deal when acquiring LPR, WR agreed to retain all of the current employees of the resort. The manager of the Jungle Cafe, while hardworking and enthusiastic, has very little experience in the restaurant business. The manager is responsible for selecting the menu, finding and training employees, and overseeing daily operations. The kitchen staff members prepare food and wash dishes. The dining room staff members take orders, serve as cashiers, and clean the dining room area.

Vacationers have always complained about the long waiting time for the staff to take order and for the food to be ready to serve. Cleanliness at the dining area has not been cleaned regularly or just left it unattended after the vacationers have left the table. Staff absenteeism is high and sometime late in reporting work.

Shortly after taking over LPR, management of WR held a day-long meeting with all of the employees of the Jungle Cafe to discuss the future of the resort and the new management's plans for the cafe. At the end of this meeting, management and employees created a balanced scorecard for the café that would

help guide operations for the coming vacation season. Almost everyone who participated in the meeting seemed to be enthusiastic about the scorecard and management's plans for the cafe.

**Required**

- a) Outline the **FOUR (4)** main perspectives (sections) of a balanced scorecard that could be viewed on an organisation, as suggested by the Balanced Scorecard. (7 marks)
- b) Explain how these four perspectives in the Balanced Scorecard are interrelated. Based on the above case, provide an example on the cause-and-effect relationship for Lost Peak Resort. (10 marks)
- c) Suggest **TWO (2)** metrics each under the four perspectives of the Balanced Scorecard to evaluate the performance of the employees. (8 marks)

**[Total 25 marks]**

**END OF QUESTION PAPER**