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FACULTY OF BUSINESS

FINAL EXAMINATION

Student ID (in Figures) :	
Student ID (in Words) :	

Course Code & Name : **ACC3223 STRATEGIC MANAGERIAL ACCOUNTING**
Semester & Year : JANUARY – APRIL 2021
Lecturer/Examiner : JAMES LIOW
Duration : 3 Hours

<u>INSTRUCTIONS TO CANDIDATES</u>

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.**

<u>WARNING:</u> 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.

QUESTION 1

Section A

Brace Co is split into two divisions, A and B, each with their own cost and revenue streams. Each of them is managed by a divisional manager who has the power to make all investment decisions within the division. The cost of capital for both divisions is 12%. Historically, investment decisions have been made by calculating the return on investment (ROI) of any opportunities and at present, the return on investment of each division is 16%.

A new manager who has recently been appointed in division A has argued that using residual income to make investment decisions would result in 'better goal congruence' throughout the company.

Each division is currently considering the following separate investments:

	Division A	**Division B**
Capital required for investment	RM82.8 million	RM40.6 million
Sales generated by investment	RM44.6 million	RM21.8 million
Net profit margin	28%	33%

Required

(a) Calculate the return on investment for each of the two divisions. *(round to 2 decimal places)*
(3 marks)

(b) Calculate the residual income for each of the two divisions. (3 marks)

(c) Comment on the results by taking into consideration the manager's views about residual income.
(4 marks)

(Subtotal 10 marks)

Section B

A manufacturing company, Man Co, has two divisions: Division Leo and Division Mars. Both divisions make a single standardised product. Division Leo makes component LED, which is supplied to both Division Mars and external customers.

Division Mars makes product MED using one unit of component LED direct materials. It then sells the completed product MED to external customers. To date, Division Mars has always bought component LED from Division Leo.

The following data information is available:

	Division Leo (RM)	**Division Mars (RM)**
Selling price	40.00	96.00
Less:		
Internal transferred component		40.00
Direct materials	12.00	17.00
Direct labour	6.00	9.00
Variable overheads	2.00	3.00
Selling and distribution costs	4.00	1.00
	24.00	70.00
Contribution per unit before fixed costs	16.00	26.00
Annual fixed costs	RM500,000	RM200,00
Annual external demand (units)	160,000	120,000
Capacity of plant (units)	300,000	130,000

Division Leo charges the same price for component LED to both Division Mars and external customers. However, it does not incur the selling and distribution costs when transferring internally.

Division Mars has just been approached by a new supplier who has offered to supply it with component LED for RM37.00 per unit. Prior to this offer, the cheapest price which Division Mars could have bought component LED for from outside the group was RM42.00 per unit.

It is head office policy to let the divisions operate autonomously without interference at all.

Required:

a) Under the current transfer pricing system, prepare a profit statement showing the contribution margin and profit for each of the divisions and for Man Co as a whole. (The sales and costs figures should be split into external sales and inter-divisional transfers, where appropriate). (5 marks)

b) Assuming that Division Mars has agreed to buy the component LED from the new supplier, prepare a profit statement showing the contribution margin and profit for each of the divisions and for Man Co as a whole. Justify whether Division Leo and Man Co would accept this new arrangement. Provide **TWO** (2) consequences if Division Mars takes the offer from the new supplier. (8 marks)

c) Determine the sensible range for the transfer pricing (minimum and maximum) to be charged to Division Mars in order to achieve goal congruence. (2 marks)

(Subtotal 15 marks)

[Total 25 marks]

QUESTION 2

Beta Co produces 3 products, A, B and C, all products will go through 3 machines, i.e. Machine 1, Machine 2 and Machine 3. All products are produced using the same materials, machinery and a skilled labour force. The details of which are shown below:

Product	**Units**	**Machine 1 (Hours)**	**Machine 2 (Hours)**	**Machine 3 (Hours)**
A	600	5	4	3
B	500	4	5	6
C	400	3	3	3

The capacity of the machine hours that are available is as follows:

Machine 1 (Hours)	**Machine 2 (Hours)**	**Machine 3 (Hours)**
7,000	6,200	5,800

The selling price and product unit cost for each product are shown below:

Product	**Selling Price (RM)**	**Unit Product Cost**		
		Direct Material (RM)	**Direct Labour (RM)**	**Factory Overheads (RM)**
A	200	100	60	15
B	300	180	70	30
C	280	200	40	35

Required

a) Identify which machine produces the bottleneck and calculate the shortage of hours. (3 marks)

b) Calculate the total cost per factory hours *(round to 2 decimal places).* (3 marks)

c) Calculate the throughput accounting ratio for the three products *(round to 2 decimal places)* and explain what they indicate to Beta Co about production 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 and calculate the maximum profit of Beta Co. (8 marks)

e) Describe any **TWO** (2) differences between a conventional cost accounting and throughout accounting. (5 marks)

[Total 25 marks]

QUESTION 3

Smart Touch (ST) manufactures high-quality speakers. ST recognises the need to establish a culture of Total Quality Management (TQM) at the company and has classified the following cost of quality:

Type of Costs	Description
Prevention	- Business process reengineering in order to improve and increase the value of the product quality. - Carry out preventive maintenance on equipment to ensure all equipment and machineries are working efficiently with zero breakdown.
Appraisal	- Inspect raw materials for faulty or sub-standard parts received from suppliers. - Inspect finished goods for any damage before delivering to customers.
Internal failure	- Unproductive down time due to equipment breakdown. - Manufacture rework that fails to meet certain standard.
External failure	- Customer support to ensure customer satisfaction. - Warranty repair to ensure the products sold are not returned for replacement. - Product returns due to damage or defective parts.

ST aims this quality programme will avoid lost profits due to unsatisfied customers, fewer sales returns, decrease the cost of rework, reduce equipment and machineries breakdown and lower warranty repair costs.

The management accounting team at ST has collected the following actual information for the most recent quarter of the current year:

Cost data	Rate (RM)
No. of rework per unit	30.00
Warranty repair cost per unit	125.00
Sales returns per unit	100.00
Inspection of raw materials per unit	50.00
Inspection of finished goods per unit	75.00
Preventive maintenance of equipment per hour	20.00
Equipment and machineries breakdown per hour	20.00
Customer support for unsatisfied customers per hour	120.00

Activity data	Volume
Products requiring manufacturing rework	5,000 units
Products requiring warranty repairs	8,000 units
Products requiring sales returns	5,000 units
Products requiring inspection of raw materials	2,000 units
Products requiring inspection of finished goods	2,000 units
Preventive maintenance of equipment hours	5,000 hours
Equipment and machineries breakdown hours	10,000 hours
Customer support centre time	1,000 hours

Additional information:

(i) ST undertook a business process reengineering to increase the value of the product quality at a cost of RM750,000.

(ii) Total sales recorded for the quarter is RM6 million.

Required

a) Produce a Cost of Quality (COQ) Report for ST showing total quality costs for each category, total costs of conformance and total costs of non-conformance using the following format and headings:

Cost Categories	Volume	Rate (RM)	Costs (RM)

(6 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 (6 marks)

c)

(i) Explain the purpose of the COQ Report in part (a).

(ii) Comment how the relationship between conformance and non-conformance costs would support the development of a TQM culture at ST and way to improve the overall quality costs.

(8 marks)

d) Recommend whether ST should undertake the quality programme and justify the reason. (5 marks)

[Total 25 marks]

QUESTION 4

STAR is a large company which, for many years, operated solely as a pay-tv broadcaster. However, five years ago, it started product bundling, offering broadband and telephone services to its pay-tv customers. Customers taking up the offer were then known in the business as 'bundle customers' and they had to take up both the broadband and telephone services together with the pay-tv service. Other customers were still able to subscribe to pay-tv alone but not to broadband and telephone services without the pay-tv service.

All contracts to customers of STAR are for a minimum three-month period. The pay-tv box is sold to the customers at the beginning of the contract; however, the broadband and telephone equipment is only rented to them.

In the first few years after product bundling was introduced, the company saw a steady increase in profits. Then, STAR saw its revenues and operating profits fall. Consequently, staff bonuses were not paid, and staff became dissatisfied. Several reasons were identified for the deterioration of results:

1) In the economy as a whole, discretionary spending had been severely hit by rising unemployment and inflation. In a bid to save cash, many pay-tv customers were cancelling their contracts after the minimum three-month period as they were then able to still keep the pay-tv box. The box comes with a number of free channels, which the customer can still continue to receive free of charge, even after the cancellation of their contract.
2) The company's customer service call centre, which is situated in another country, had been the cause of lots of complaints from customers about poor service, and, in particular, the number of calls it sometimes took to resolve an issue.
3) Some bundle customers found that the broadband service that they had subscribed to did not work. As a result, they were immediately cancelling their contracts for all services within the 14 day cancellation period permitted under the contracts.

In a response to the above problems and in an attempt to increase revenues and profits, STAR made the following changes to the business:

1) It made a strategic decision to withdraw the pay-tv–broadband–telephone package from the market and, instead, offer each service as a standalone product.
2) It guaranteed not to increase prices for a 12-month period for each of its three services.
3) It transferred its call centre back to its home country and increased the level of staff training given for call centre workers.
4) It investigated and resolved the problem with customers' broadband service. It is now one year since the changes were made and the finance director wants to use a balanced scorecard to assess the extent to which the changes have been successful in improving the performance of the business.

Required:

(a) For each perspective of the balanced scorecard, identify two goals (objectives) together with a corresponding performance measure for each goal which could be used by the company to assess whether the changes have been successful. Justify the use of each of the performance measures that you choose. (20 marks)

(b) Discuss by recommending **TWO** (2) suggestions on how the company could reduce the problem of customers terminating their pay-tv service after only three months. (5 marks)

[Total 25 marks]

END OF QUESTION PAPER