

IMA, BATCH: 2015-17, Term-2
Managerial Accounting and Control

15 MAC

F.M. = 50 Marks

Time: 120 minutes

Prof. Pooja A. Gulechi

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25/10/15

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Section: A

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Note: Q1 is Compulsory. Attempt any two from rest of the questions.

Case - Traditions Ltd. Questions:

From the given case facts answer the following questions. All questions are compulsory.

Qs. 1:

- a) On the assumption that the costs for this trading period will not change significantly from those of the previous period, prepare Marginal Costing Statements to show "Contributions for Each department" and also the "Contribution and profit for the Store overall" on the basis of:
 - i) departments remaining in operation;
 - ii) the closure of the Restaurant Department

[16 marks]

- b) From the given case facts discuss briefly the financial and non-financial consequences of closing the Restaurant Department.

[6 marks]

Traditions Ltd.

The Company

Traditions Limited is a family-owned and managed, traditional department store situated in Breezyfield, a city in the North of England. The Store was established some sixty years ago by the current owners' father, who passed on the business to his three sons on his death. All three sons are still deeply involved in the running of the business, even though they are now in their sixties, and none of them have children to whom to pass on the business. The Store occupies 100,000 square metres of the main shopping district in the city centre. The management team of Traditions Limited pride themselves on running a store which retains the standards of service and customer relationships usually associated with a bygone era.

The Store has four retailing departments (Furnishings, Kitchenware, Menswear and Toys) and a Restaurant. Each department is managed by a departmental manager and recently Samantha was appointed to the post of departmental manager of the Toy Department. She is in her early thirties and is studying on a part-time basis at Sheffield Hallam University for a degree in Accounting and Management Control (she is currently in her final year).

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Albert is the departmental manager of Menswear and he is also Samantha's great uncle. He used to be a Sergeant in the Police Force and will be celebrating his 65th birthday shortly. Samantha and Albert do not agree on many issues and often argue. Kitchenware is managed by Joseph and Furnishings is managed by Arthur. Joseph and Arthur joined the Store round the same year, beginning their careers in retailing as junior sales assistants and working their way up to their current management roles. Both are now in their middle fifties and pride themselves on knowing their regular customers by name.

Claude, who previously worked for Traditions for a number of years as a chef, was promoted to manager of the Restaurant some time ago. Claude achieved some fame a number of years ago when he entered and won a potato-sculpting competition. His prize was an all-expenses-paid weekend in Paris and he was interviewed by Yorkshire television. This attracted favourable publicity for Traditions Limited. However, Claude does have an explosive temper and has been known to 'lash out' at his two assistants, Tracy and Paul. He sets very high standards for the restaurant and will throw away cooked dishes which do not meet these standards. He spends the majority of his time in the kitchen and intensely dislikes 'paperwork', constantly complaining that it stifles his creativity. The 'French Cuisine' menu offered by the restaurant is extensive and creative, but it is generally felt within the company that the prices charged sometimes barely cover the food cost, although this cannot be substantiated because information is not collected.

Claude revises menus weekly, ordering food supplies from local suppliers on a daily basis. There is no stock control system in operation in the Restaurant. The kitchen equipment is quite old and has not been regularly maintained. For example, the dough mixer keeps breaking down and the safety catch on the steamer is missing.

Claude claims that, if he were given additional capital to refurbish and equip the kitchen, he would be able to generate even more business for the Restaurant. In addition, new European Union regulations concerning cook-chill facilities mean that Traditions Limited will soon have to spend a considerable amount of money in upgrading the kitchen's food keeping facilities.

The storage of stock presents problems for Traditions Limited. Merchandise and stock is delivered to one store-room for all departments other than the restaurant, where deliveries are made directly to the kitchen area. Deliveries are not checked or counted in any way and items are placed on any shelves which are free. As a result, staff often find it difficult to locate products and thus customers are often left waiting for long periods. All staff are allowed into the stock-room and, on odd occasions, customers have been known to wander in by mistake. All records of the Store are maintained on manual systems.

Recent Events

In the past the Store has operated profitably. However, the most recent financial statements revealed a small loss for the previous trading period. This came as quite a shock to the owners and is causing great concern.

Prior to this news, and in a move which seems to have been totally unrelated to it, the family members decided to appoint a Managing Director in order to take some of the workload from their own shoulders. They appointed Vijay as the Store's first Managing Director and when he takes up his appointment he will be the first 'non-family' member to be employed in a senior managerial role. He is well qualified for the job, having gained valuable retail experience with Sparks and Mention plc, a leading department store chain with a first class management training programme and an excellent growth and profits record. His first post with Sparks and Mention plc was as a graduate trainee and he progressed to store manager of one of the company's stores in the affluent South East of England.

As a result of the reported loss for the previous trading period, the family members called a meeting of the Store's employees to discuss the situation. This type of meeting was unprecedented in the history of the Store. Prior to the meeting, a suggestion box was set up and attendees were asked to put forward suggestions for improving the profitability of the Store.

One suggestion for improving the profitability of the Store was the closure of the Toy Department, another suggestion was the closure of the Restaurant and a third suggestion was an across the board price reduction of 5% in order to stimulate demand. In each case the source of the suggestion was not identified.

Unfortunately, when the family members asked for information to assist in evaluating these suggestions, this was hampered by the lack of management information produced within the company. Apparently, the recording systems were geared to maintaining records for government regulatory bodies, such as Customs and Excise and the Inland Revenue, and to assist the company secretary in the production of the year-end financial statements.

Since Samantha is studying for an accounting degree, she was asked to tackle the job of seeking out information which might be helpful. The information she produced is set out below. It identifies revenues and costs incurred during the previous trading period. The family members were so impressed with the information she produced that they asked her to consider taking on the additional role of management accountant in the company.

Departments

	<i>Arthur</i> Furnishing £000	<i>Joseph</i> Kitchenware £000	<i>Claude</i> Restaurant £000	<i>Albert</i> Menswear £000	<i>Samantha</i> Toys £000
Sales	560.0	980.0	410.	430.0	680.0
Purchases for resale	400.0	680.0	325.	229.0	560.0
Opening stock	255.0	63.0	25.5	27.0	197.0
Closing stock	263.0	53.0	25.0	25.5	229.5
Non management wages	75.0	45.0	101.0	65.0	95.0
Departmental expenses	21.0	10.0	16.5	5.0	20.0
Sales promotion costs	14.0	2.0	nil	1.0	20.0
Per cent of floor space occupied by department	20	20	15	35	10

2. The following
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Samantha has looked into the behaviour of these costs at different sales levels. Purchases of goods for resale in all departments varied proportionally with the level of sales. Additionally, due to the staffing policy of the company (see note on staffing policy below), so did the wages of non-management staff. Departmental expenses (for instance, wrapping paper for goods purchased, cleaning of staff uniforms) were also considered to vary with the level of sales, and there seemed to be a direct correlation between sales promotion costs in the departments and the increase in sales. Other costs totalling £412,000 (not included in the above schedule) were considered not to change with sales levels and some of these costs could not be directly related to individual departments.

Note on Staffing Policy

The company staffs all the Departments by using a core of full time staff to cover a minimum demand level and a flexible workforce of part time staff to work as and when required, with no guaranteed minimum or maximum number of hours for part-time staff.

Q2. The following extracts are taken from the SALES BUDGET of a company for a current year.

(All figures are in Rs. in Thousands)

Sales : 40,000 units @ Rs. 25 per unit		1000	40000×25
Selling costs:			
Advertising	100	100	+ 25
Salesman Salaries	80	80	+ 30
Travelling expenses	50	50	+ 5
Rent of sales office	10		
Others	10		
TOTAL		250	

The management is considering a proposal to establish a new market in the eastern region in the next year. It is proposed to increase the advertising expenditure by 25% and appoint an additional sales supervisor at a salary of Rs 30000 per year to establish a market. This will involve additional travelling which will increase the travelling expense by 10%.

The target annual sales volume at the existing selling price for the new market is 10,000 units. The estimated variable cost of production is Rs 12 per unit.

Should the company try to establish the new market ?

(14 marks)

Q3. Rayburn Auto products(RAP) is an Automotive component supplier. RAP has been approached by General Motors to consider expanding its production of Part X120 to a total annual quantity of 2000 units. This part is a low volume , complex product with a high gross margin that is based on a proposed (quoted) unit sales price of USD 7.5. RAP uses a traditional costing system that allocates indirect manufacturing costs based on direct labour costs. The rate currently used to allocate indirect manufacturing costs is 400% of direct labour cost. This rate is based on the USD 3200000 annual factory overhead cost divided by USD 800000 annual direct labour cost. To produce 2000 units of X120 requires USD 5000 of direct material and USD 1000 of direct labour. The unit cost and gross margin percentage for part X120 based on the traditional cost system are computed below:

Particulars	TOTAL in USD	Per Unit (Total ÷ 2000) in USD
Direct material	5000	2.5
Direct labour	1000	0.5
Indirect manufacturing (400% x direct labour)	4000	2
TOTAL COST	10000	5
Sales price quoted		7.5
Gross margin		2.5
Gross margin percentage		33.3%

The management of RAP decided to examine the effectiveness of their traditional costing system versus an activity based costing system. The following data have been collected by a team consisting of accounting and engineering analysis:

Activity Center	Traceable factory overhead costs (Annual) in USD
Quality	700000
Production scheduling	50000
Set up	600000
Shipping	300000
Shipping administration	50000
Production	1500000
Total indirect manufacturing cost	3200000

Activity Centre: Cost drivers	Annual Cost Driver Quantity
Quality; Number of pieces scrapped	10000
Production scheduling: Number of set ups	500
Set up; Number of set ups	500
Shipping; Number of containers shipped	60000
Shipping administration; Number of shipments	1000
Production; Number of machine hours	10000

The accounting and engineering team has performed activity analysis and provides the following estimates for the total quantity of cost drivers to be used to produce 2000 units of part X 120

Cost Driver	Cost driver consumption
Pieces scrapped	120
Set ups	4
Containers shipped	10
Shipments	5
Machine hours	15

You are required to :

1. Prepare a schedule calculating the unit cost and gross margin of part X120 using the activity based costing approach.
2. Based on ABC results , which course of action would you recommend regarding the proposal by General Motors. List the benefits and costs associated with implementing an ABC system at RAP. (14 marks)

Q4. Write Short notes on any **three** of the following:

(14 marks)

- a) Total Life Cycle Costing
- b) Target Costing
- c) Transfer Pricing
- d) Value Chain Analysis
- e) Responsibility Centers

Dr. Ashish Verma

12 MAC

Dr. N.L. Ahuja

Dr. Pooja Aggarwal

08.11.2012

IMT Ghaziabad
PGDM (2012-14) End-Term Exam
Managerial Accounting

Max Time: 2 hours

Max Marks: 50

Note: This question paper has two parts: A and B. Answer both questions of Part-A and any two questions from Part-B.

Part-A:

Read the Merrion Products case enclosed herewith, and answer both questions given at the end of the case. (20 marks)

Part-B:

Answer any two questions from this part. Each question carries 15 marks.

Q-B1. Topps Company is considering investing in a project for which the following information is available:

	Rs.
Initial capital expenditure	250,000
Profits/ (losses) after depreciation and taxes:	
year 1	90,000
year 2	90,000
year 3	70,000
year 4	(20,000)
year 5	(20,000)

The project will be operational for five years, at the end of which there is not expected to be any scrap value. Depreciation has been provided on straight line basis. The company estimates its cost of capital at 14%.

Required: Calculate the following and recommend whether or not to accept the project.

- The Accounting Rate of Return (ARR) on initial investment
- The payback period.
- The net present value.

Note: Extracts from the PV tables:

	Re: 1 received/paid at the end of period				
	1	2	3	4	5
PV factor at 14%	0.8772	0.7695	0.6750	0.5921	0.5194

(5 x 3 = 15 marks)

Q-B2. The Greatway Limited is in the process of developing next year's master budget for its standard product. The company plans to sell 5,000 units of the product next year at a budgeted price of Rs. 400 per unit.

The materials and labour time required per unit of the product are as follows:

Material X per unit of product	7 kg.
Material Y per unit of product	5 kg.
Direct Labour hours per unit of product	3 hours

Standard prices and rates:

Raw material X	Rs. 10 per kg
Raw material Y	Rs. 12 per kg
Direct labour	Rs. 50 per hour

Budgeted Production Overheads:

Variable production overhead	Rs. 8 per labour hour
Fixed production overhead	Rs. 60,000 per annum

Non-production overheads

Marketing and Administration costs budget	Rs. 75,000 per annum
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Opening Inventory:

Finished product	800 units
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Planned closing inventory:

Finished product	1,800 units
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Fixed production overheads are absorbed on the basis of direct labour hours. The firm does not plan to have any raw materials inventories. There has been no change in the standard costs since last year.

Required: Using the above information, prepare the following budgets for the company:

1. Production costs budget (materials cost, direct labour and production overheads);
2. The Master Budget in the form of a budgeted profit and loss account.

(7.5 x 2 = 15 marks)

Q-B3. Explain and illustrate the *difference* between any two of the following:

- a. Absorption and marginal costing.
- b. Traditional and activity based costing.
- c. Cost and market based transfer pricing methods.

(7.5 x 2 = 15 marks)

Merrion Products Ltd

Merrion Products Ltd. was incorporated and commenced to trade in 20x1. Its several shareholders consisted of members of the Carroll family. The business was devoted to the import of a raw material substance which was slightly refined to Irish tastes and sold to various customers around the country. During the initial years of production, product "A" was the only product manufactured and the profits were adequate to satisfy the family shareholders. During the 20x0's it was decided to introduce new products based on the same raw material but refined in different ways. In 20x3, product "B" was introduced and product "C" was added the following year. Both products were an immediate success and the entire production output for both products was sold by the end of the year. In fact demand for all products constantly outstripped production. Encouraged by this success, product "D", based on the same raw material was introduced into the product range last year after extensive research on customer tastes. It was considered by all family members to be as equally successful as the other three products.

According to the audited financial statements Merrion Products Ltd. was a profitable company with an excellent cash flow. The various family members concentrated mainly on the administrative and selling side of the business. Each family member was entitled to a basic salary which was supplemented by a share of total sales commission. The sales commission was calculated at the rate of 10% of sales price on every unit sold. Thus each family member would participate in the overall success of his firm. The Carroll family believed that the company's profitability was mainly attributable to two factors. First, was the high quality of its products with guaranteed delivery dates. Michael Carroll, the managing director of the firm, often boasted that the number of customer complaints in any one year could be counted on the fingers of one hand. The second reason was due to subtle marketing and presentation so that each product was perceived by the public as different and was sold to different types of customer. In other words the products were not considered complementary and had their own unique brand loyalty. Thus the sales of one product could fluctuate without affecting the sales of the other products, or the refusal of orders for one product would not lead to the cancellation of orders for the others.

Each product was produced from the same basic raw material which was imported from abroad. Until recently this raw material was available in unlimited quantities and was purchased by Merrion quarterly in advance as required. However recent political instability in the exporting country resulted in a severe restriction on the availability of this raw material. A recent fact finding visit to the exporting country only served to confirm the restricted availability of the imported raw material in the forthcoming year. On his return home Michael Carroll called a directors meeting to discuss the problem and its impact on the budget for the forthcoming quarter.

Una Carroll, the only daughter in the family, filled the role of company accountant. After obtaining a business studies degree at college she immediately joined the family firm. She was mainly concerned with maintaining the basic financial accounting records and keeping control over accounts receivable and payable. She also monitored progress towards agreed budget targets. However the budget setting process for each quarter was unsophisticated in that output levels were determined by amiable consensus among family members. Preference was usually given to the highest price item since this procedure maximised sales commission for the family members. Una tried to persuade the other members of the family that there was a more scientific method available to determine best production plans. However whenever she mentioned the phrase, "profit maximisation" in discussion her family always retorted "But that's only theory Una and has got nothing to do with practice". Being the youngest in the family Una felt she lacked a great deal of authority and credibility.

The Carroll family felt that the business did not need a management accountant since they considered the overall operations to be fairly simple. Neither did they require the services of a production manager or a marketing manager since they could virtually sell everything they produced. Una knew from experience that as long as budgeted profit was higher than last year then everyone was happy. Generally, the actual financial performance met the budget targets pretty well.

At the start of the meeting Michael Carroll relayed to participants details of his foreign trip. He explained, "Unfortunately our worst suspicions have been confirmed. I saw things at first hand and also had discussions with our Embassy officials. I made direct contact with our usual supplier and he indicated that he will be unable to delivery more than 72,000 euros of raw materials per quarter until conditions improve and that's not going to be for some time. The basic problem, he tells me is that the material is simply not available in his country due to the current political situation. Since my return home I have made extensive enquiries regarding possible alternative suppliers of the same raw material in other countries. There just isn't any which we could tap at this short notice. Like many simple problems, its insoluble in the short-term. We've just got to accept it for now!"

Una interrupted: "I expect that our budgets for the next quarter shall have to be revised - downwards - and our profits shall be considerably depressed as a result." She circulated the previously agreed budget and supporting schedules for the forthcoming quarter to participants (Exhibits 1 and 2).

EXHIBIT 1

Budget for the quarter ending 31 March 20x7

		Euros
Budget sales		200,000
Cost of production		<u>149,500</u>
Gross margin		50,500
Administration expenses	19,900	
Distribution expenses	5,700	
Sales commission	20,000	
Financial expenses	<u>800</u>	<u>46,400</u>
Budgeted Net Profit		<u>4,100</u>

EXHIBIT 2

Schedule of Revenue and Production Costs per Product.

Product	A	B	C	D
Sales price	20	40	30	20
Direct material (imported)	7	16	13	10
Direct labour and packing	3	4	6	4
Production overhead	4	5	6	5
Budget sales (units)	1,500	2,000	2,000	1,500

NOTE: Production overhead includes both fixed and variable expense. The estimated fixed overhead for the forthcoming quarter amounts to 20,000 euros and has been apportioned to each product on the basis of total anticipated sales revenue for each product.

Una continued "In my opinion there is no scope for any reduction in costs. We can't change, at least in the short term, our direct material costs. Neither can we change our packaging costs. Our direct labour consists of the part-time assembly workers which we need in order to produce. Likewise variable overheads will be incurred if we want to produce and our fixed overheads are already down to an absolute minimum. Commission is the only thing that we could effectively cut."

Michael Carroll interjected. "No, I recommend that the sales commission be left alone. We're all in this venture together and I reckon we're going to have to sell our way out of our problems. We need to retain the incentive to sell and keep our selling prices intact."

Everyone agreed. Patrick Carroll, the eldest member of the family, who was chiefly responsible for sales, raised the possibility of maximum sales levels of each product. He said, "We must take into

consideration that there is a definite limit on the amount of goods which we can sell at existing prices next quarter."

Michael Carroll accepted that the point was valid. After much discussion all family members agreed that maximum sales value of each product at current prices for the forthcoming quarter would be as follows:

Product	Euros
A	60,000
B	88,000
C	63,000
D	40,000

Subsequently everyone at the meeting realised that due to the definite shortage of raw materials it was not possible to produce simultaneously all these quantities. Michael Carroll added "I think we shall have to be more selective in what we produce in future. However, I recommend that we produce a minimum of 1,000 units of each product during the forthcoming quarter. This would, at least, keep the company's products in the minds of the public and satisfy our major customers. Its important to do this. Any remaining materials should be used in the most profitable manner. Una, now is the ideal time to put some of that theory of yours into practice. If you feel that there is a single, best way to utilise our production facilities in these circumstances now is the ideal time to let us know."

Requirements

1. Prepare a statement showing the most profitable production plan for Merrion Products Ltd. for the forthcoming quarter. Prepare a detailed profit and loss account to accompany your recommendation. Explain your workings. (12 marks)
2. Calculate the firm's break-even point for the forthcoming quarter. What fundamental assumptions have you made? (8 marks)