



National University of Science and Technology

FACULTY OF COMMERCE

DEPARTMENT OF ACCOUNTING

SUPPLEMENTARY EXAMINATION: 2011/2012

DATE: JUNE 2012

**SUBJECT: STRATEGIC MANAGEMENT
ACCOUNTING: CAC4205**

TIME ALLOWED: THREE (3) HOURS

MARKS: 100

INSTRUCTIONS TO CANDIDATES

1. Answer all **three** questions
2. Use the examination book provided
3. Use black or blue pen
4. Begin each question on a new page and
5. Submit all answer books

QUESTION 1 (30 MARKS)

Two of the divisions of Muchachema Ltd are Intermediate Division and the Final Division.

The Intermediate Division produces three products, A, B and C. The products are sold to overseas specialist producers as well as to the Final Division at the same prices. The Final Division uses products A, B and C in the manufacture of product X, Y and Z respectively.

Recently, the Final Division has been forced to work below capacity because of difficulties in obtaining sufficient suppliers of products A, B and C. Consequently the Intermediate Division has been instructed by the board of directors to sell all its products to the Final Division.

The price and cost data is as follows:

Intermediate Division

Product	A	B	C
	\$	\$	\$
Transfer price	20	20	30
Variable Manufacturing cost per unit	7	12	10
Fixed costs	50 000	100 000	75 000

The Intermediate Division has a maximum monthly capacity of 50 000 units and must produce at least 10 000 units of each product. The remaining capacity can be used to produce 20 000 units of any combination of the three products.

Final Division

Products	X	Y	Z
	\$	\$	\$
Final selling price	56	60	60
Variable cost per unit:			
Internal purchase	20	20	30
Processing in Final Division	10	10	16
Fixed Costs	100 000	100 000	200 000

The Final Division has sufficient capacity to produce up to 20 000 units more than it is now producing but, because of lack of products A, B and C, is having to limit production to 50 000 units. Further the Final Division is able to sell all the products that it can produce at the final selling prices.

REQUIRED

- (a) Allowing the manager of the Intermediate Division to determine the product mix calculate this and the resultant profits for both divisions. Assume all transfers are internal. **(6 Marks)**
- (b) Allowing the manager of the Final Division to determine the product mix, calculate this and the resultant profit for both divisions. Assume all transfers are internal. **(6 Marks)**

- (c) Compute the product mix which would maximise the total company profits assuming all transfers were internal. **(6 Marks)**
- (d) If transfers price equals market price, what is the effect if anything is lost by the policy of internal transfers only?
(6 Marks)
- (e) Discuss the effectiveness or otherwise of the transfer pricing system currently used at Muchechema Ltd. **(6 Marks)**

QUESTION 2 (40 MARKS)

- (a) A firm manufactures colour televisions, radios, record players and speakers for record players. The costs of manufacture and the number of hours of labour involved are given below: The labour costs are \$1 per hour.

<u>Item</u>	<u>Cost of Parts (\$)</u>	<u>No of hours of labour</u>	<u>Selling Price (\$)</u>
Colour TV	160	20	230
B/W TV	20	10	70
Radio	7	5	22
Record Player	35	8	73
Speakers	10	2	20

At least 10 more record players than speakers are required each week. The total number of hours of labour available is 1 000.

REQUIRED

Express and solve the problem of maximizing the profits (sales revenue-costs) per week in linear programming form. **(20 Marks)**

(b)

Activity	Depends On	Duration		Direct cost	
		Normal (weeks)	Crash time (weeks)	Normal \$	Crash \$
A	-	3	3	600	600
B	A	15	13	2 000	2 300
C	A	7	4	1 100	2 000
D	A	10	9	800	900
E	C	8	8	1 300	1 300
F	C	4	3	800	1 000
G	FD	5	4	750	1 000

REQUIRED

- (i) Draw a project network from the above details and find the critical path. (10 Marks)
- (ii) If indirect costs amount to \$600 per week, determine which activities should be crashed and by how much. (10 Marks)

QUESTION 3 (30 MARKS)

The head office of Lot WT receives regular financial statements from its divisions. Although non-controllable overhead and an apportionment of centrally incurred costs are charged in these, the divisional income statements identify divisional controllable profit.

Since the divisions are given the status of investment centres, there is an emphasis on returns on divisional investment and the company, having regard to the cost of capital figures used in major investment decisions has set a target of 12% for this.

For the quarter ended 31 March the summarized returns of two of the divisions are as follows:

Divisional Income Statements.

	Sothern Division		Northern Division	
	\$		\$	
Sales				
External		100 000		650 000
Internal (to other divisions)		<u>200 000</u>		<u>50 000</u>
		<u>300 000</u>		<u>700 000</u>
Cost of goods sold				
Direct materials	50 000		100 000	
Direct labour	100 000		120 000	
Controllable overheads	<u>50 000</u>	200 000	<u>80 000</u>	300 000
Selling & distribution expenses		<u>10 000</u>		<u>50 000</u>
Controllable Profit		<u>90 000</u>		<u>350 000</u>

	Sothern Division		Northern Division	
	\$	\$	\$	\$
Controllable Profit		90 000		350 000
Non-controllable divisional Overhead		11 000	30 500	
Central overhead (Apportioned on sales)		<u>9 000</u>	<u>21 000</u>	
Divisional net profit		<u>70 000</u>		<u>51 500</u>
				<u>298 500</u>
Divisional Investment		<u>\$350 000</u>		<u>\$2 000 000</u>
Return on Divisional Investment		20%		15%

It is considered appropriate to compare the performance of these two divisions since both manufacture the same range of product selling at similar prices. Intra group transfers are made at market price.

Although Northern Division has more modern plant than Southern Division and a larger profit there is some concern at the comparatively low rate of return that it is earning.

REQUIRED

Draft a report for the financial controller of WT Ltd commenting on and comparing the performance of the two divisions. In your report, consider the transfer pricing method used by the company and the use of the rate of return on investment as a measure of operating performance. Make suggestions of improving the divisional performance appraisal system, if you consider that there is room for improvement. Consider the role that residual income might play in a revised performance measurement system. **(30 Marks)**

END OF EXAMINATION PAPER