



# National University of Science and Technology

## FACULTY OF COMMERCE

### DEPARTMENT OF ACCOUNTING

**SUPPLEMENTARY EXAMINATION PAPER: 2012/2013**

**DATE: JULY 2013**

**SUBJECT: STRATEGIC MANAGEMENT  
ACCOUNTING: CAC4205**

**TIME ALLOWED: THREE & HALF (3½) 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)**

The CC Restaurants wish to convert old railway carriage into restaurants. The activities involved in the conversion were as shown in the table below:

		Depends on	Duration(weeks)	No. of men
A	Purchase & renovate coaches	-	10	4
B	Purchase restaurant equipment	-	3	2
C	Hire personnel	-	1	1
D	Select & purchase site	-	2	2
E	Obtain license	D	7	1
F	Site preparation	E	3	3
G	Move coaches onto site	A,F	5	2
H	Install gas, electricity, water	G	4	4
I	Install equipment	D,H	4	5
J	Decorate	B,H	3	2
K	Stock bar & kitchen	I,J	6	3
L	Advertise	G	3	1
M	Train personnel	C,I	4	2
N	Undertake pilot operation	K,L	7	2
O	Start operating fully	M,N	-	-

#### **Required:**

(a) Find the critical path and earliest opening date.

**(16Marks)**

(b) By shifting the non-critical activities, minimize the maximum number of men required.

**(14 Marks)**

### **QUESTION 2 (30 Marks)**

Torres Corporation is a large, multi-division manufacturing company. Each division is viewed as an investment center and has virtually complete autonomy for product development, marketing and production.

Senior corporate management evaluates performance of division managers periodically. Divisional rate of return on capital employed is the sole criterion used in performance evaluation under current corporate policy. Corporate management believes that rate of return on capital employed is an adequate measure because it incorporates quantitative information from the divisional income statement and balance sheet in the analysis.

Some division managers complain that a single criterion for performance evaluation is insufficient and ineffective. These managers have compiled a list of criteria, which they believe should be used in evaluating division profitability, market position, productivity, product leadership, personnel development, employee attitudes, public responsibility, and balance between short-range and long-range goals.

**Required**

(a) Discuss the shortcomings or possible inconsistencies of using rate of return on capital employed as the sole criterion to evaluate divisional management performance.

**(10 Marks)**

(b) Discuss the advantages of using multiple performance measures versus a single performance measure in evaluating divisional management performance. **(10 Marks)**

(c) Describe the problems or disadvantages, which can be associated with the implementation of a system of multiple performance measures as suggested to Torres Corporation by its divisional managers. **(10 Marks)**

**QUESTION 3 (40 Marks)**

Leastan Company manufactures a line of carpeting, which includes a commercial carpet and a residential carpet. Two grades of fiber- heavy duty and regular- are used in manufacturing both types of carpeting. The mix of the two grades differs in each type of carpeting, with the commercial grade using a greater amount of heavy-duty fiber.

Leastan will introduce a new line of carpeting in two months to replace the current line. The present fiber in stock will not be used in the new line; therefore, management wants to exhaust the present stock during the last month of production.

Data regarding the current line of commercial and residential carpeting are:

<u>Commercial</u>	<u>Residential</u>	
Sales price per roll	\$1,000	\$800
Production specifications per roll of carpet:		
Heavy-duty fiber	80lbs	40lbs
Regular fiber	20lbs	40lbs
Direct Labour hours	15hrs	15hrs
Standard cost per roll of carpet:		
Heavy duty fiber (\$3/lb)	\$240	\$120
Regular fiber (\$2/lb.) 40	80	
Direct labour (\$10/DLH)	150	150
Variable factory overhead	90	90
Fixed factory overhead	180	180
Total standard cost per roll	<u>\$700</u>	<u>\$620</u>

Leastan has 42000 pounds of heavy-duty fiber and 24000 pounds of regular fiber in stock. All fiber not used in the manufacture of the present types of carpeting during the last month of production can be sold as scrap at \$0, 25 a pound.

There is a maximum of 10500 direct labour hours available during the month. The labour force can work on either type of carpeting.

Sufficient demand exists for the present line of carpeting so that all quantities produced can be sold.

**Required:**

(a) Compute the number of rolls of commercial carpet and residential carpet that Leastan must manufacture during the last month of production in order to exhaust completely the heavy duty and regular fiber still in stock. **(10 Marks)**

- (b) Explain whether the requirement (a) solution quantities can be manufactured during the last month of commercial and residential carpet production. **(10 Marks)**
- (c) Explain why linear programming would be useful in this application. **(10 Marks)**
- (d) Formulate the objective function and the constraints, so that linear programming can solve this problem. **(10 Marks)**

**END OF EXAMINATION PAPER**