TECHNICAL UNIVERSITY OF MOMBASA

Faculty of Business & Social Studies

DEPARTMENT OF BUSINESS STUDIES

UNIVERSITY EXAMINATIONS FOR DEGREE IN

BACHELOR OF BUSINESS ADMINISTRATION

BAC 4425: BANKRUPTCY AND INSOLVENNCY ACCOUNTS

END OF SEMESTER EXAMINATIONS

SERIES: AUGUST 2013

TIME: 2 HOURS

INSTRUCTIONS:

– Answer Question **ONE (Compulsory)** and any other **TWO** questions.

This paper consists of Five printed pages

QUESTION 1 (Compulsory)

a) Acompany produces three products using three different machines.No other products are made on these particular machines. The following data is available for December 2012.

Product	A	B	C
Contribution per unit	sh.3,600	sh.2,800	sh.1,800
Machine hours required per unit:			
Machine 1	5	2	1.5
Machine 2	5	5.5	1.5
Machine 3	2.5	1	0.5
Estimated sales demand(units)	50	50	60

Maximum machine capacity for December is 400 hours per machine.

Required

i) Calculate the machine utilization rates for each machine for December 2012. (2marks)

ii) Identify which of the machines is the bottleneck machine. (2marks)

iii) State the recommended procedure given by Goldratt in his 'Theory of constraints (TOC) for dealing with a bottleneck activity. (2marks)

iv) Calculate the optimum allocation of the bottleneck machine hours to the three products. (3marks)

b) Duruma LTD has recently introduced an activity based costing sytem. It manufactures three products, details of which are set out below:

	Product D	**product R**	**product P**
Budgeted annual Production (units)	100,000	100,000	50,000
Batch size (units)	100	50	25
Machine set-ups per batch	3	4	6
Purchase orders per batch	2	1	1
Processing time per units(mins)	2	3	3

Three cost pools have been identified , Their budgeted costs for the year ended 31 December 2012 are as follows:

Machine set-up costs	sh,150,000
Purchasing of materials	70,000
Processing	80,000

Required:

Calculate the annual budgeted number of :

i) Batches

ii) Machine set ups

iii) Purchase orders

iv) Processing minutes (2marks)

v) Calculate the budgeted overhead unit cost for product R for inclusion in the budget for 2012. (4marks)

c) Green division is one of many divisions in Colour company. At its year end, the fixed assets invested in Green were sh.30,000,000 and the net current assets were sh5,000,000. Included in this total was a new item of plant that was delivered 3 days before the year end . This item cost sh,4,000,000 and had been paid for by Colour ,which had increased the amount of long-term debt owed by Green by this amount. The profit earned in the year by Green was sh.6,000,000 before the deduction of sh.1,400,000 of interest payable to Colour.

Required

Determine the most appropriate measures of ROI for the Green division (5marks)

d) An alternative to absorption costing is activity based costing (ABC).

I) Explain briefly what is entailed in activity based costing. (2marks)

II) Explain the reasons behind the development of ABC. (3marks)

e) Throughput accounting (TA) is an approach to accounting which is largely in sympathy with JIT philosophy. TA for JIT is said to be based on three concepts. Discuss the three concepts and explain how they are a direct contrast to the fundamental principles of conventional cost accounting. (5marks)

QUESTION 2

Likoni ferry services co.LTD has one of its ferry boats in bad condition. It can be renovated at a cost of sh.20,000,000. Further repairs and an overhaul of the motor will be needed five years from now at a cost of sh,8,000,000. The ferry will be usable for 10years if this work is done. At the end of 10 years the ferry will have to be scrapped at a salvage value of approximately sh.6,000,000. The salvage value of the ferry right now is estimated to be sh.7,000,000. It will cost sh.30,000,000 each year to operate the ferry and revenues will amount to sh 40,000,000 annually.

As an alternative, Likoni ferry services co LTD can purchase a new ferry boat at a cost of sh.36,000,000. The new ferry boat at a cost of sh.36,000,000. The new ferry will have a life of 10years, but it will require some repairs at the end of 5 years. It is estimated that these repairs will amount to sh3,000,000. At the end of 10years, it is estimated that the ferry will have a salvage value of sh,6,000,000. It will cost sh.21,000,000 each year to operate the ferry, and revenues will total sh 40,000,000 annually.

Likoni ferry services co LTD requires a return of at least 14% before taxes on all investment projects.

Required :

Determine if the company should purchase the new ferry boat or renovate the old boat. (20marks)

QUESTION 3

Traditional cost control systems focused on cost containment rather than cost reduction. Today cost management focuses on process improvement and the identification of how processes can be more effectively and efficiently performed to result in cost reductions.

Required

Discuss how the cost management techniques of target costing and life cycle costing differ from the traditional cost containment approach and how each seek to achieve cost reduction. (20marks)

QUESTION 4

Faulu co LTD makes and sells two products, A and B ,each of which passes through the same automated production operations. The following estimated information is available for period 1.

- Product unit data:

	A	B
Direct material cost (sh)	2	40
Variable production overhead cost(sh)	28	4
Overall hours per product unit (hours)	0.25	0.15

- Original estimates of production/sales of products A and B are 120,000 units and 45,000 units respectively. The selling price per unit for A and B are sh.60 and sh. 70 respectivly.
- Maximum demand for each product is 20% above the estimated sales levels.
- Total fixed production overhead cost is sh.1,470,000. This is absorbed by products A and B at an average rate per hour based on the estimated production levels.

One of the production operations has a maximum capacity of 3,075 hours which has been identified as a bottleneck which limits the overall estimated production/sales of product A and B. The bottleneck hours required per product unit for product A and B are 0.02 and 0.015 respectivly.

Required:

a) Calculate the mix(in units) of products A and B which will maximize net profit and the value (in sh) of the maximum net profit. (6marks)

b) Faulu co ltd has now decided to determine the profit-maximising mix of products A and B based on the through put accounting principle of maximizing return per production hour of the bottleneck resource.

Given that the variable overhead cost, based on the value (in sh) which applies to the original estimated production/sales mix, is now considered to be fixed for the short/intermediate term:

i) Calculate the mix (of units) of products A and B which will maximize net profit and the value of that net profit. (10marks)

ii) Calculate the throughput accounting ratio for product B. (2marks)

iii) It is estimated that the direct material cost per unit of produce B may increase by 20% due to shortage of supply. Calculate the revised throughput accounting ratio for product B and comment on it. (2marks)

QUESTION 5

Swanga LTD has two divisions A and B whose respective performance are under review. Division A is currently earning a profit of sh35,000,000 and has net assets of sh 150,000,000, Division B currently earns a profit of sh 70,000,000 with net assets of sh325,000,000.

Swanga LTD has a current cost of capital of 15%.

Required.

a) Using the information above calculate the return on investment and residual income figures for the two divisions under review and comment on your results. (10marks)

b) State which of method of performance evaluation(i.e ROI and RI) would be more useful when comparing divisional performance and why. (5marks)

c) List three general aspects of performance measures that would be appropriate for a service sector company. (5marks)