TECHNICAL UNIVERSITY OF MOMBASA

SCHOOL OF BUSINESS
Department of Accounting & Finance

UNIVERSITY EXAMINATION FOR:

BACHELOR OF COMMERCE
BACHELOR OF BUSINESS ADMINISTRATION

BAC 4407: ISSUES IN MANAGEMENT ACCOUNTING

END OF SEMESTER EXAMINATION

SERIES: **AUGUST 2019**

TIME: 2 HOURS

Instructions to Candidates
You should have the following for this examination
-Answer Booklet, examination pass and student ID
This paper consists of FIVE questions. Question One is Compulsory. Answer any other two questions.
Do not write on the question paper.

Question ONE (Compulsory)

(a) A firm of financial advisors has established itself by providing high quality, personalized, financial strategy advice. The firm promotes itself by sponsoring local events, advertising, client newsletters, having a flexible attitude towards the times and locations of meetings with clients and seeking new and innovative ideas to discuss with its clients.

The senior manager of the firm has recently noticed that the firm's profitability has declined, with fewer clients being interested in the firm's new investment ideas. Indeed, many clients have admitted to not reading the firm's newsletters.

The senior manager seeks your help in restoring the firm's profitability to its former level and believes that the techniques of Value Analysis and Functional Analysis may be appropriate.

Required:

(i) Explain the meanings of, and the differences between, Value Analysis and Functional Analysis. (4 marks)

(ii) Briefly explain the series of steps that you would take to implement Value Analysis for this organization. (6 marks)

(b) ABC Ltd produces a large number of products including A and B. A is a complex product of which 1,000 units are made and sold in each period. B is a simple product of which 25,000 units are made and sold in each period. A requires one direct labour hour to produce and B requires 0.6 direct labour hours to produce.

ABC Ltd employees 12 salaried support staff and a direct labour force that works 400,000 direct labour hours per period. Overhead costs are sh.50,000,000 per period.

The support staff are engaged in three activities – 6 staff engaged in receiving 25,000 consignments of components per period, 3 staff engaged in receiving 10,000 consignment of raw materials per period and 3 staff engaged in disbursing kits of components and materials for 5,000 production runs per period.

Product A requires 200 component consignments, 50 raw material consignments and 10 production runs per period. Product B requires 100 component consignments, 8 raw material consignments and 5 production runs per period.

Required:

(i) Calculate the overhead cost of A and B using a traditional costing system of overhead absorption based on direct labor hours; (2 marks)

(ii) Identify appropriate cost drivers and calculate the overhead cost of A and B using an activity-based costing system; (3 marks)

(iii) Compare your answers to (a) and (b) and explain which gives the most meaningful impression of product costs. (3 marks)

(c) Company X produces a single product with the following standard cost per unit:

	Sh.
Material cost	1,000
Conversion cost	1,200
Total cost	**2,200**

The company operates a backflush costing system with a raw material stock control account. Details for the current month are:

	Sh.
Raw material stock control account opening balance	50,000
Raw material purchased	460,000
Conversion costs incurred	520,000
Cost of goods sold at standard cost	899,800

Required:
Determine the closing balance on the raw material stock control account. (6 marks)

(d) Summary financial statements are given below for one division of a large divisionalized company.

Summary Divisional Financial Statements for the year ended 31 December
Balance Sheet

	Sh.000
Non-current assets	150,000
Current assets	60,000
Total assets	210,000
Divisional equity	100,000
Long-term borrowings	70,000
Current liabilities	40,000
Total equity and liabilities	210,000

Income Statement

	Sh.000
Revenue	400,000
Operating cots	360,000
Operating profit	40,000
Interest paid	7,000
Profit before tax	33,000

The cost of capital for the division is estimated at 12% each year.
Annual rate of interest on the long-term loans is 10%
All decisions concerning the division's capital structure are taken by central management.

Required:
Determine (a) the divisional Return on Investment (ROI); and (b) the divisional Residual Income (RI) for the year ended 31 December. (6 marks)

Question TWO

Telmat is a company that manufactures mobile phones. This market is extremely volatile and competitive and achieving adequate product profitability is extremely important. Telmat is a mature company that has been producing electronic equipment for many years and has all the costing systems in place that one would expect in such a company. These include a comprehensive overhead absorption system, annual budgets and monthly variance reports and the balanced scorecard for performance measurement. The company is considering introducing:

(i) Target costing; and

(ii) Life cycle costing systems

Required:
Discuss the advantages that this specific company is likely to gain from these two costing systems.

Question THREE

Fahari 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

Product unit data	A	B
Direct material cost (sh.)	200	4,000
Variable production overhead cost (sh.)	2,800	400
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 prices per unit for A and B are sh.6,000 and sh.7,000 respectively.

- Maximum demand for each product is 20% above the estimated sales levels.

- Total Fixed Production overhead cost is Sh.147,000,000. 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 products A and B. The bottleneck hours required per product unit for products A and B are 0.02 and 0.015 respectively.

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. (6 marks)

(b) Fahari Co. has now decided to determine the profit-maximizing mix of products A and B based on the throughput principle of maximizing the throughput 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. (10 marks)

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

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

Question FOUR

(a) Outline and discuss the main objectives of a transfer pricing system. (6 marks)

(b) Transfer prices based on "total cost-plus" are inappropriate. Discuss. (8 marks)

(c) Discuss the major factors to be considered when setting transfer prices for an international group. (6 marks)

Question FIVE

Bondeni Ltd is a highly geared company that wishes to expand its operations. Six possible capital investments have been identified, but the company only has access to a total of sh.620 million. The projects are not divisible and may not be postponed until a future period. After the projects end it is unlikely that similar investment opportunities will occur.

Expected net cash inflows (including salvage value)

Project	Year 1	2	3	4	5	Initial outlay
	Sh.000	**Sh.000**	**Sh.000**	**Sh.000**	**Sh.000**	**Sh.000**
A	70,000	70,000	70,000	70,000	70,000	246,000
B	75,000	87,000	64,000	-	-	180,000
C	48,000	48,000	63,000	73,000	-	175,000
D	62,000	62,000	62,000	62,000	-	180,000
E	40,000	50,000	60,000	70,000	40,000	180,000
F	35,000	82,000	82,000	-	-	150,000

Projects A and E are mutually exclusive. All projects are believed to be of similar risk to the company's existing capital investments.

Any surplus funds may be invested in the money market to earn a return of 9% per year. The money market may be assumed to be an efficient market. Bondeni Ltd's cost of capital is 12% per year.

Required:

(a) Calculate:

(i) The expected net present value;

(ii) The expected profitability index associated with each of the 6 projects, and ranks the projects according to both of these investment appraisal methods.

(iii) Explain briefly why these rankings differ. (12 marks)

(b) Give reasoned advice to Bondeni Ltd recommending which projects should be selected. (4 marks)

(c) A director of the company has suggested that using the company's normal cost of capital might not be appropriate in a capital rationing situation. Explain whether you agree with the director. (4 marks)