

THE PUBLIC ACCOUNTANTS EXAMINATIONS BOARD

A Committee of the Council of ICPAU

CPA(U) EXAMINATIONS

LEVEL THREE

MANAGEMENT DECISION AND CONTROL - PAPER 12

THURSDAY, 13 DECEMBER 2007

INSTRUCTIONS TO CANDIDATES:

1. Time allowed: **3 hours**
2. Section **A** has **two** compulsory questions. Question **one** carries 30 marks and question **two** carries 10 marks.
3. Section **B** has **four** questions and only **three** questions are to be attempted. Each question carries 20 marks.
4. Tables are provided on page 8.
5. Please read further instructions on the answer book.

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SECTION A

Question 1

Telicel Ltd (Telicel) operates an airtime distribution franchise with Yelocom Uganda Ltd, one of the major telecommunication companies in Uganda, which are: Yelocom Uganda Ltd, Peace Telcom (U) Ltd and Safeway Telcom Ltd – the Great Three (G3).

The great three have been successful in their operations. This has attracted new players namely Hutch Telcom Ltd and Precise Telcom Ltd.

The coming in of two more telecom providers is expected to intensify competition in the already competitive telecommunications industry. As a diversification strategy, the management of Telicel is considering negotiating with Hutch telecom for a franchise to distribute airtime alongside the one it operates with Yelocom Uganda Ltd. Under the new franchise, Telicel will sell airtime within an allocated territory and will earn a commission of 11.5% on scratch card airtime sales and 10% on EVD (Electronic Voucher Device or Environmentally Degradable) card airtime sales – representing a 1.5% and 1% commission above its existing franchise on scratch cards and EVD cards respectively.

Telicel's distribution model:

Telicel sells airtime through stockists, sub-dealers, retailers and its own shops and kiosks.

- Stockists (wholesalers) buy airtime in bulk for resale to sub-dealers and end-users. Unlike Telicel, Stockists are not restricted from selling products (airtime, phones and accessories) of other telecom providers. Therefore, they are more competitive to Telicel because their delivery teams can sell products of all telecom providers (Yelocom, Hutch, Precise, Peace and Safeway). Currently, Stockists get a commission of 7% and 7.5% on scratch card airtime and EVD card airtime respectively from Telicel. Telicel does not intend to change this arrangement.
- Sub-dealers (retailers) buy airtime in small quantities from Telicel for resale to end-users. Currently, Telicel gives Sub-dealers a commission of 5.5% on scratch cards and 6.5% on EVD cards. However, Telicel will increase this commission by 1% and 0.5% on scratch cards and EVD cards respectively, if it obtains the Hutch Telecom franchise.
- Direct sales: Telicel also sells directly to end-users at its various outlets within its designated territories. It only incurs a fixed cost of Shs 5 million per month in administration and office rentals. Telicel anticipates this to increase by Shs 2 million per annum if the Hutch Telecom franchise is obtained. Additionally, Telicel insures all its outlets up to Shs 5 million per annum, but this cost is expected to increase to Shs 6 million if Telicel obtains the Hutch Telecom franchise.

- Direct sales at Telicel's various outlets are budgeted at Shs 10 million for scratch card airtime and Shs 20 million for EVD card airtime and this is expected to remain constant for each of the next five years. Half of the airtime sales will be as a result of the new franchise with Hutch Telecom.

Revenue and cost forecasts

Telicel has forecast the following revenues and costs over the next five-year period to 30 November 2012 relating to the new Hutch Telecom franchise and the expected increase in airtime sales:

- (a) Budgeted airtime sales to stockists in the first year
 - Shs 100 million of scratch cards.
 - Shs 50 million of EVD cards.

Telicel management expects airtime sales to stockists to increase by 10% and 20% per year for the next five years for scratch cards and EVD cards respectively.
- (b) Budgeted airtime sales of scratch cards and EVD cards to sub-dealers is anticipated to equal to half of the total sales to stockists for each respective year.
- (c) One of the conditions of a successive franchise with Hutch Telecom Ltd is that a minimum investment of Shs 60 million is required at the start, of which Shs 50 million is for working capital.
- (d) Working capital is expected to increase by 10% per year for each of the next five years

Note: Ignore taxes and capital allowances in this question. Round off to the nearest one thousand. All sales are cash sales.

Assume that 'now' is November 2007.

Required

- (a) Given that Telicel's shareholders require a return of 10% for investments of this degree of risk, using NPV method of investment appraisal, advise on the financial viability of the Hutch Telecom franchise.
(20 marks)
- (b) With reasons, explain why the NPV method of investment appraisal is preferable to other methods.
(5 marks)
- (c) Explain the terms "NPV and IRR", and state the relationship between the two methods of investment appraisal.
(5 marks)

(Total 30 marks)

Question 2

The Managing Director of ABC Ltd. attended a seminar on modern management and advanced production techniques. There were so many terminologies that confused him, such as:

- (a) Cost drivers.
- (b) Cost pools.
- (c) Value added activity.

Required:

Write a memo to the Managing Director explaining each of the above terms and its relevance or application to Activity Based Costing. Be brief but clear in your explanations.

(10 marks)**SECTION B****Question 3**

Masala Eats Ltd produces and sells three products: Chickenchips – C, Beanskalo – B and Matookefish – M. The following information has been provided in respect of budgeted sales for the following month of January.

		Products					
		Chickenchips		Beanskalo		Matookefish	
		600 plates		400 plates		550 plates	
		Shs	Shs	Shs	Shs	Shs	Shs
Selling price per plate			2,000		3,600		1,800
Variable costs per plate	Materials	900		400		600	
	Labour	200		800		400	
	Overheads	300		200		-	
Absorbed fixed cost per plate		<u>200</u>		<u>800</u>		<u>1,000</u>	
			<u>(1,600)</u>		<u>(2,200)</u>		<u>2,000</u>
Unit profit / (loss)			<u>400</u>		<u>1,400</u>		<u>(200)</u>

The company has existing stocks of 200 plates of Chickenchips, which it is willing to sell to meet the sales demand. All the three products use the same type of material, labour and overheads. In the following month of January, the available supply of materials will be limited to Shs 4,400 (at cost), available supply of labour limited to Shs 6,200 (at cost), and available supply of overheads limited to Shs 2,800 (at cost).

Note: For accounting purposes, one plate is equivalent to one unit.

Required:

- (a) Show, with appropriate computations, that materials are a limiting factor whereas labour and overheads are not.
(8 marks)
 - (b) Recommend the optimum production mix that would maximize total contribution.
(12 marks)
- (Total 20 marks)**

Question 4

You have been appointed as a management accountant of MAK Construction Ltd, a company involved in the analysis of the economic impact of CHOGM on the people of Uganda. MAK Construction Ltd's management has set up a management information system to facilitate data collection, analysis and reporting.

Required:

- (a) Write a report to the Board of Directors explaining, with relevant examples, the qualities of good information.
(5 marks)
 - (b) Write brief notes on **each** of the following:
 - (i) Advantages of exceptional reporting.
(3 marks)
 - (ii) Disadvantages of target costing.
(3 marks)
 - (iii) Management information system.
(4 marks)
 - (iv) Stages involved in benchmarking.
(5 marks)
- (Total 20 marks)**

Question 5

James Kintu has been working as a Kitchen Manager for Rolex Ltd and has retired. He intends to start up a business on his own account, using Shs 110 million which he received in cash from Rolex Ltd as his retirement package. James maintains an account with Rio Bank with a minimal balance, but intends to approach the bank for the necessary additional finance.

James has approached you for advice on starting up a business and has provided the following additional information:

- (a) Arrangements have been made to purchase non-current assets costing Shs 100 million. The assets will be paid for at the end of December and are expected to have a five year life, at the end of which they will have no scrap value.

- (b) Monthly purchases of stock will be at a level sufficient to replace forecast sales for the following month. James had bought some stock in November 2007, which was enough for forecast sales in December, the month in which he started trading.
- (c) Forecast monthly sales are Shs 50 million for December 2007, Shs 85 million for January 2008, Shs 98 million for February, and Shs 115 million from March onwards.
- (d) Selling price is fixed at a margin of 40%.
- (e) Two months' credit will be allowed to customers, but one month's credit will be received from suppliers of stock. Of the total sales, 20% will be on credit terms.
- (f) Running expenses, including rent but excluding depreciation of non-current assets, are estimated at Shs 20 million per month.
- (g) James plans to set up a 15% provision for all debtors outstanding for more than two months.
- (h) James will make monthly cash drawings of Shs 15 million, effective February 2008.
- (i) James has applied for a bank loan of Shs 90 million at 20% per annum and expects to receive it early May 2008. The loan is repayable in equal installments over two years.

Note: Express your answer and all workings in thousands.

Required

- (a) Prepare:
 - (i) A monthly cash budget for the first six months of business.
(12 marks)
 - (ii) A budgeted profit and loss (P&L) statement for the six months' period ending 31 May 2008.
(6 marks)
 - (b) Advise James on the appropriate strategies to improve on cash management practices, with reference to the cash budget prepared in (a) (i) above
(2 marks)
- (Total 20 marks)**

Question 6

Mulamu Beverages Ltd produces both fruit juice and mineral water. The company gets a contribution of 40% from fruit juice, which means it spends 60% on variable costs. The company spends 45% on variable costs to produce mineral water, leaving a contribution of 55% to cover fixed costs and profits. Each litre of water is sold at Shs 1,000 while a litre of fruit juice is sold at Shs 2,000. The company incurs fixed costs of Shs 60,600,000 per month.

Over the years it has been proved that for every six liters of water sold, three liters of juice are sold.

Required:

- (a) Advise the company on the minimum monthly sales revenue, in shillings, that must be made for the company to break-even.
(4 marks)
- (b) Given that a litre of water is sold for Shs 500 and a litre of fruit juice is sold for Shs 1,000, advise the company on the minimum break-even quantities that have to be produced.
(4 marks)
- (c) Prepare a profit-volume graph of Mulamu Beverages Ltd for sales revenue up to Shs 120 million indicating clearly, the break-even point on this chart.
(5mark)
- (d) Prepare a fresh graph , showing the line in (c) above and another line showing another break even point on the same chart assuming that for every litre of mineral water sold, one litre of fruit juice is sold. Clearly indicate the effect on break even point and on profits due to the change in the sales mix.

(7 marks)

(Total 20 marks)

Table 1: PVIF- Present Value of Shs 1 Due at the End of n Periods

Period	9%	10%	11%	12%	13%	14%	15%	16%	18%	20%
1	0.917	0.909	0.901	0.893	0.885	0.877	0.870	0.862	0.847	0.833
2	0.842	0.826	0.812	0.797	0.783	0.769	0.756	0.743	0.718	0.694
3	0.772	0.751	0.731	0.712	0.693	0.675	0.658	0.641	0.609	0.579
4	0.708	0.683	0.659	0.636	0.613	0.592	0.572	0.552	0.516	0.482
5	0.650	0.621	0.593	0.567	0.543	0.519	0.497	0.476	0.437	0.402
6	0.596	0.564	0.535	0.507	0.480	0.456	0.432	0.410	0.370	0.335
7	0.547	0.513	0.482	0.452	0.425	0.400	0.376	0.354	0.314	0.279
8	0.502	0.467	0.434	0.404	0.376	0.351	0.327	0.305	0.266	0.233
9	0.460	0.424	0.391	0.361	0.333	0.308	0.284	0.263	0.225	0.194
10	0.422	0.386	0.352	0.322	0.295	0.270	0.247	0.227	0.191	0.162
11	0.388	0.350	0.317	0.287	0.261	0.237	0.215	0.195	0.162	0.135
12	0.356	0.319	0.286	0.257	0.231	0.208	0.187	0.168	0.137	0.112
13	0.326	0.290	0.258	0.229	0.204	0.182	0.163	0.145	0.116	0.093
14	0.299	0.263	0.232	0.205	0.181	0.160	0.141	0.125	0.099	0.078
15	0.275	0.239	0.209	0.183	0.160	0.140	0.123	0.108	0.084	0.065

TABLE 2: PVAF - Present Value of an Annuity of Shs 1 per Period for n Periods

Period	9%	10%	11%	12%	13%	14%	15%	16%	18%	20%
1	0.917	0.909	0.901	0.893	0.885	0.877	0.870	0.862	0.847	0.833
2	1.759	1.736	1.713	1.690	1.668	1.647	1.626	1.605	1.566	1.528
3	2.531	2.487	2.444	2.402	2.361	2.322	2.283	2.246	2.174	2.106
4	3.240	3.170	3.102	3.037	2.974	2.914	2.855	2.798	2.690	2.589
5	3.890	3.791	3.696	3.605	3.517	3.433	3.352	3.274	3.127	2.991
6	4.486	4.355	4.231	4.111	3.998	3.889	3.784	3.685	3.498	3.326
7	5.033	4.868	4.712	4.564	4.423	4.288	4.160	4.039	3.812	3.605
8	5.535	5.335	5.146	4.968	4.799	4.639	4.487	4.344	4.078	3.837
9	5.995	5.759	5.537	5.328	5.132	4.946	4.772	4.607	4.303	4.031
10	6.418	6.145	5.889	5.650	5.426	5.216	5.019	4.833	4.494	4.192
11	6.805	6.495	6.207	5.938	5.687	5.453	5.234	5.029	4.656	4.327
12	7.161	6.814	6.492	6.194	5.918	5.660	5.421	5.197	4.793	4.439
13	7.487	7.103	6.750	6.424	6.122	5.842	5.583	5.342	4.910	4.533
14	7.786	7.367	6.982	6.628	6.302	6.002	5.724	5.468	5.008	4.611
15	8.061	7.606	7.191	6.811	6.462	6.142	5.847	5.575	5.092	4.675