 Serial No……

Institute of Certified Management Accountants of Sri Lanka
Strategic Level
November 2016 Examination

Examination Date : 26th November 2016 **Number of Pages :** 07
Examination Time: 1.30 p:m. – 4.30 p:m. **Number of Questions:** 05

Instructions to Candidates

1. Time allowed is **three (3) hours.**
2. Total: **100** Marks.
3. Answer **all** questions in **Part I** and any **three (3)** questions from **Part II**.
4. The answers should be in **English Language.**

Subject	Subject Code
Strategic Management Accounting	**(SMA / SL 1 - 401)**

PART I

Answer **all** questions

Question No. 01 (40 Marks)

Traditional Group Ltd. ("the Group") has been in business for the last eight decades. The Group is proud of its longevity, growth and comparative financial stability over that time. It commenced its operations as a small firm formed by Samarasekara family and now manufactures and distributes a range of engineering products throughout Sri Lanka. Equity of the firm is still within Samarasekara family and they are rarely interested in buying equity in other companies. Growth has been financed mainly by the reinvestment of profits and borrowings to some extent. The growth is in the forms of expansion of existing business units and establishment of new units.

Chief Executive Officer (CEO), Peter Samarasekara, commented about the company as "Our managerial and business style means that we like to think of our Group as traditional and tightly managed, but not conservative in any prejudicial sense. For example, most of our business units are engaged in manufacturing and/or distributing physical products through traditional distribution channels. We don't do much selling over the Internet and only one of our business units involves in the services sector. It's not that we have made any deliberate decision to lock ourselves out of Internet selling or services sectors, it's just that we have made different choices as to what sectors we want to be in".

Peter is in the opinion that 100% family-ownership is not a hindrance to maintain high calibre of management. Approximately, 10% of business unit managers are family members and Peter believes that they have all been appointed on merit and are subject to the same performance management assessment controls applicable to other 90%. Business unit managers have a fair degree of autonomy, but they know that they are assessed on a periodic and regular basis. Peter went on saying "Everyone has an annual profit target or an annual Return on Investment (ROI) target for his or her business unit, and they know that if they achieve that target then they are 'safe' – the Christmas bonus, the additional job security, and the pat on the back from me will all be forthcoming. Sometimes, a manager will want to pursue a business opportunity with a longer timeframe – for example, take a strategic initiative which will adversely affect profits in the current year but will pay off handsomely in the long term. That's fine by me; it's a form of 'outside-the-box' thinking. But it's 'part of the deal' in that type of situation that I need to be shown what the long-term game plan is and when it's going to pay off – in other words, that someone isn't just trying to conceal bad outcomes and decisions in the current year".

Peter believes that it is ultimately better for the Group if he respects business unit managers' autonomy as much as possible. He recognises that there may be conflicts both within and/or between business units, but he believes that it is part of each business unit manager's job to resolve those conflicts and to do so should be in the best interests of the Group.

One of the business units of the Group, Alpha Business Unit (ABU), has recently completed research and development (R & D) work on a new consumer electronic product, at a cost of Rs. 40 million. Alan Samarasekara (the business unit's general manager) developed the following forecast for the four phases of the product's lifecycle after having discussion with functional managers of ABU.

	Introduction	Growth	Maturity	Decline
Units sold	20,000	50,000	100,000	10,000
Unit cost incurred in production and distribution (Rs.)	410	340	300	380

However, a dispute developed between Alan and ABU's marketing manager about the appropriate selling price to be charged for the new product at the introduction phase. Alan has stated that while ABU should not look for making profits on this product at this phase, nevertheless the price charged should be high enough to recover the production and distribution costs at this phase in full and one quarter of R & D costs.

In contrast, the marketing manager believes that the price should be kept to a minimum at the Introduction phase. Specifically, she favours a price which would equal the per-unit lifecycle cost of the product (where R & D is included in lifecycle cost). She believes that consumers are potentially quite price-sensitive and sales quantities indicated above can be taken as a guideline but should not be taken for granted.

Peter Samarasekara mentioned that he is unimpressed by this internal wrangling within ABU and in any case he cannot understand why the selling price should differ between different phases of the lifecycle. He has indicated that he has tentatively decided to direct Alan to adopt a constant selling price in all phases of the lifecycle, and that he plans to set the following explicit profit targets in relation to the product:

- Net profit of at least 47% of sales in each phase of the product lifecycle, before taking account of R & D costs into account, and
- Net profit of at least 20% of sales over the product lifecycle as a whole, after taking account of R & D costs into account.

Note: Ignore inflation and the time value of money.

You are required to:

(a) List out **three (3)** strengths and **three (3)** weaknesses of Traditional Group Ltd. **(06 Marks)**

(b) **Assess** the strategic direction of the group. **(08 Marks)**

(c) **Explain** the existing performance measurement system of the Group to evaluate each business unit by highlighting its possible issues. **(06 Marks)**

(d) **Calculate** the prices proposed for the launch phase by (i) Alan Samarasekara and (ii) the Marketing Manager separately and **critically evaluate** the projected trends in unit cost during the four phases of the product lifecycle. **(10 Marks)**

(f) **Explain** with reasons whether the profit targets set out by Peter Samarasekara be achieved assuming that he decided to direct Alan to adopt a constant selling price at all phases of the lifecycle, and that this constant selling price is the average of two prices which you arrived at in your answer to part (d) above. **(04 Marks)**

(g) **Evaluate** critically whether a constant selling price in all phases of the lifecycle is appropriate in this case. Make appropriate reference to the results of your calculations in previous parts and be specific about any proposals for changing the pricing strategy. No additional calculations are required for this part. **(06 Marks)**

(Total 40 Marks)

End of Part I

Part II

Answer any **three (3)** questions

Question No. 02 (20 Marks)

The Delta Business Unit (DBU) carries out large engineering jobs to individual customer specifications. The manager of DBU will retire next year, and CEO hired Jane through a recruitment agency an on the belief that she has excellent relevant experience in another company in the UK by offering a 4-year contract position at DBU. The terms of the offer include a generous compensation package linked to the profits earned by DBU during 4 years. CEO believes that DBU has been a very successful with the new recruit of Jane, it has great potential to continue and expand the success. CEO provided Jane with following comparative financial data about the recent performance of the business unit given in table 1.

Table 1

	2015 (Rs.)	2014 (Rs.)
Turnover	270,000,000	260,000,000
Net profit	56,000,000	52,000,000
Bad debts	1,320,000	1,300,000

It can be assumed that the inflation rate in each of the two years was 3% per annum.

Jane indicated that she would need some additional information before deciding whether to accept the employment offer. The following is an extract from a balanced scorecard, which was prepared at Jane's request given in table 2.

Table 2

	2015	2014
Customer theme:		
Number of customers	120	100
Average revenue from each customer, per annum (Rs.)	2,200,500	2,600,000
Market share	9%	8%
Internal process theme:		
Percentage of jobs completed contained errors	3%	4%
Average job completion time (days)	5.5	7
Learning & growth themes:		
Staff turnover rate	10%	5%
Training expenditure	100,000	100,000

You are required to:

(a) **Analyse** the change in the financial performance of DBU from 2014 and 2015, using the information provided in Table 1. **(03 Marks)**

(b) **Evaluate critically** the change in the performance of DBU from 2014 and 2015, using the information provided in Table 2. **(05 Marks)**

(c) **Discuss** the significant reasons why your analysis in the question (b) above is more relevant than your answer to part (b) above for Jane to decide whether or not to accept the offer. **(08 Marks)**

(d) Jane says that she would only accept the offer, if her annual bonuses are linked to a defined set of measures from all sections of the unit's balanced scorecard. CEO is resistant to this idea, as profit is the ultimate goal of the organisation and that all bonuses should be profit-related only. Explain, with reasons; whether CEO should accede to Jane's request order to secure her acceptance of the position on offer.

(04 Marks)

(Total 20 Marks)

Question No. 03 (20 Marks)

ABC PLC manufactures three products, namely X, Y & Z. Production overheads amount to Rs.171,000,000/- per month and these are allocated to products on machine hour basis. Direct labour costs amount to Rs.1,200/- per hour. Selling prices for each product are set partly by reference to the cost of production as indicated by the company's product costing system. A summary of a typical month's production activities is given below.

The following summary of a typical month's production activities is available:

	Product X	Product Y	Product Z
Units of output per month	2,000	5,000	10,000
Machine hours per unit	1	3	4
Direct labour hours per unit	0.75	1	1.25
Direct materials cost per unit (Rs.)	2,000	1,200	2,500
Number of production setups per month	60	100	200
Number of materials movements per month	100	150	200
Number of inspections per month	70	80	90

ABC is considering activity-based costing (ABC) system instead of its existing product costing system. Analysis reveals that monthly overhead expenditure amounting to Rs.71,000,000/- relates to the various activities as given below.

Costs relating to operating of machinery	10%
Costs relating to production setups	40%
Costs relating to materials movements	25%
costs relating to inspections	25%

You are required to:

(a) **Estimate** production cost per unit for each product based on (i) the existing product costing system, and (ii) an ABC system. **(10 Marks)**

(b) **Compare and contrast** the effects of the two costing systems by providing information as to why the costs of each product differ between two systems. **(06 Marks)**

(c) **Critically evaluate** how ABC PLC should use the activity-based costing information as a basis for revising its product selling prices. **(04 Marks)**

(Total 20 Marks)

Question No. 04 (20 Marks)

Investment centre control is not used in DA group at present and business unit managers are held responsible for the profit earned by their units without referring to the amount of capital invested in each unit.

This has caused discontent among managers of some smaller units who argue that it is difficult for them to earn a significant profit because of their limited capital assets.

It has been suggested to treat business units as investment centres in future instead of evaluating them as profit centres. DA group's cost of capital is 10% per annum and it has been suggested that this would be an appropriate Return on Investment (ROI) target in a system of investment centre control. It is estimated that the ROI earned by individual business units at present ranges between 3% and 15%. The management accountant is preparing an assessment of whether the proposed control system would be likely to lead to more goal congruent decision making by business unit managers. She has specified the following three hypothetical investment decisions which are typical of those available to unit managers.

Proposal	Capital investment needed (Rs.)	Annual profits (Rs.)
A	26,000,000	4,700,000
B	15,200,000	684,000
C	30,000,000	3,600,000

Another hypothetical proposal ("Proposal D") would involve a business unit manager divesting an existing capital investment which generates annual profits of Rs.675,000/- and has a book value of capital investment amounting to Rs.9,000,000/-.

You are required to:

(a) **Discuss** how the proposed system of ROI-based investment centre control would be likely to lead for more goal congruent decision-making. (Your answer should provide appropriate calculations based on given data and additional information that would be most useful in making a more definite assessment).

(12 Marks)

(b) **Critically evaluate** whether the level of goal congruence in DA group would be improved by the use of **Residual Income** instead of ROI as the basis of investment centre control. Your answer should provide appropriate calculations. **(08 Marks)**

(Total 20 Marks)

Question No. 05 (20 Marks)

The Pomeranian Business Unit (PBU) manufactures small electronic products and most of which is directly sold through online store. The manager of PBU is dissatisfied with the profitability of one of its product lines and believes that some market repositioning and a new marketing strategy may be appropriate. 15,000 units of the product are sold each month at a price of Rs 400 each and the average cost of production and distribution is Rs 300 per unit. A target costing team recently analysed the product and concluded that there were no changes to product design which would reduce the average cost without adversely affecting the quality of the product.

The target costing team proposed that PBU should take the product up market. A proposed new product design would increase the unit cost to Rs 340 and the team has proposed that the selling price should be increased to Rs 450. When the PBU manager questioned the feasibility of a price increase in a very crowded market, the team suggested that even at this higher price the level of sales can actually be increased to 17,000 units per month. The team believes that this is feasible partly because of the superior quality of the product and partly because of a "cashback voucher" which it is proposed to offer with every unit of the product sold. To make use of this cashback voucher, customers would be required to visit the PBU store's website during a specific time period (between 30 and 40 days after buying the product) and enter a 12-digit code printed on the voucher. Each customer who redeems a cashback voucher would receive Rs 60 rebate to his or her credit card.

The PBU manager is skeptical about the potential cost and effectiveness of the proposed strategy. The target costing team admits that the outcome of adopting the strategy are impossible to foresee with certainty but the team suggests that an initial financial analysis of the proposal should be based on two working assumptions: First, just 60% of cashback vouchers will be actually be redeemed. Second, 80% of customers who visit the website in order to redeem a cashback voucher will (on the same website visit) make additional purchases averaging Rs 250 and with a contribution margin of 20%.

You are required to:

(a) **Appraise** the proposal on the basis of the information provided above, including the working assumptions suggested by the target costing team. **(08 Marks)**

(b) After critically reviewing the results of your financial analysis in answer to part (a), the PBU manager remains unconvinced of the merits of the proposal. In particular, he questions the "working assumptions". He has stated that: "In the most pessimistic scenario from our point of view, 100% of cashback vouchers might be redeemed, and no extra sales might result from the extra website traffic. To be on the safe side, a proper financial analysis needs to be based on this worst case scenario".

Assess the limitations of both the target costing teams and the PBU manager's suggested approaches to analysing the proposal, and suggest options as to how a rigorous financial analysis can be conducted in this case. (Calculations should NOT be included in your answer to this part). **(12 Marks)**

(Total 20 Marks)

End of Part II

Present value table

Present value of 1.00 unit of currency, that is $(1 + r)^{-n}$ where r = interest rate; n = number of periods until payment or receipt.

Periods (n)	Interest rates (r)									
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%
1	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909
2	0.980	0.961	0.943	0.925	0.907	0.890	0.873	0.857	0.842	0.826
3	0.971	0.942	0.915	0.889	0.864	0.840	0.816	0.794	0.772	0.751
4	0.961	0.924	0.888	0.855	0.823	0.792	0.763	0.735	0.708	0.683
5	0.951	0.906	0.863	0.822	0.784	0.747	0.713	0.681	0.650	0.621
6	0.942	0.888	0.837	0.790	0.746	0705	0.666	0.630	0.596	0.564
7	0.933	0.871	0.813	0.760	0.711	0.665	0.623	0.583	0.547	0.513
8	0.923	0.853	0.789	0.731	0.677	0.627	0.582	0.540	0.502	0.467
9	0.914	0.837	0.766	0.703	0.645	0.592	0.544	0.500	0.460	0.424
10	0.905	0.820	0.744	0.676	0.614	0.558	0.508	0.463	0.422	0.386
11	0.896	0.804	0.722	0.650	0.585	0.527	0.475	0.429	0.388	0.350
12	0.887	0.788	0.701	0.625	0.557	0.497	0.444	0.397	0.356	0.319
13	0.879	0.773	0.681	0.601	0.530	0.469	0.415	0.368	0.326	0.290
14	0.870	0.758	0.661	0.577	0.505	0.442	0.388	0.340	0.299	0.263
15	0.861	0.743	0.642	0.555	0.481	0.417	0.362	0.315	0.275	0.239
16	0.853	0.728	0.623	0.534	0.458	0.394	0.339	0.292	0.252	0.218
17	0.844	0.714	0.605	0.513	0.436	0.371	0.317	0.270	0.231	0.198
18	0.836	0.700	0.587	0.494	0.416	0.350	0.296	0.250	0.212	0.180
19	0.828	0.686	0.570	0.475	0.396	0.331	0.277	0.232	0.194	0.164
20	0.820	0.673	0.554	0.456	0.377	0.312	0.258	0.215	0.178	0.149

Periods (n)	Interest rates (r)									
	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%
1	0.901	0.893	0.885	0.877	0.870	0.862	0.855	0.847	0.840	0.833
2	0.812	0.797	0.783	0.769	0.756	0.743	0.731	0.718	0.706	0.694
3	0.731	0.712	0.693	0.675	0.658	0.641	0.624	0.609	0.593	0.579
4	0.659	0.636	0.613	0.592	0.572	0.552	0.534	0.516	0.499	0.482
5	0.593	0.567	0.543	0.519	0.497	0.476	0.456	0.437	0.419	0.402
6	0.535	0.507	0.480	0.456	0.432	0.410	0.390	0.370	0.352	0.335
7	0.482	0.452	0.425	0.400	0.376	0.354	0.333	0.314	0.296	0.279
8	0.434	0.404	0.376	0.351	0.327	0.305	0.285	0.266	0.249	0.233
9	0.391	0.361	0.333	0.308	0.284	0.263	0.243	0.225	0.209	0.194
10	0.352	0.322	0.295	0.270	0.247	0.227	0.208	0.191	0.176	0.162
11	0.317	0.287	0.261	0.237	0.215	0.195	0.178	0.162	0.148	0.135
12	0.286	0.257	0.231	0.208	0.187	0.168	0.152	0.137	0.124	0.112
13	0.258	0.229	0.204	0.182	0.163	0.145	0.130	0.116	0.104	0.093
14	0.232	0.205	0.181	0.160	0.141	0.125	0.111	0.099	0.088	0.078
15	0.209	0.183	0.160	0.140	0.123	0.108	0.095	0.084	0.079	0.065
16	0.188	0.163	0.141	0.123	0.107	0.093	0.081	0.071	0.062	0.054
17	0.170	0.146	0.125	0.108	0.093	0.080	0.069	0.060	0.052	0.045
18	0.153	0.130	0.111	0.095	0.081	0.069	0.059	0.051	0.044	0.038
19	0.138	0.116	0.098	0.083	0.070	0.060	0.051	0.043	0.037	0.031
20	0.124	0.104	0.087	0.073	0.061	0.051	0.043	0.037	0.031	0.026

End of Question Paper