 Serial No.…………….

Institute of Certified Management Accountants of Sri Lanka
Operational Level
November 2012 Examination

Examination Date :	11th November 2012	**Number of Pages :**	08
Examination Time:	9.30 a:m. – 12.30 p:m.	**Number of Questions:**	07

Instructions to Candidates

1. Time allowed is **three (3) hours**.
2. Total: **100 Marks**.
3. Answer **all** questions in Part I and **four (4)** questions from Part II selecting **two (2)** question from each of the Sections **A** and **B**.
4. The answers should be in **English Language.**

Subject	Subject Code
Operational Management Accounting	**(OMA / OL 1 - 201)**

PART I

Question No. 01 (20 Marks)

For questions 1 to 5, select the most appropriate answer from the given answers under (a), (b), (c) & (d) for each question and write only the letter [i.e. (a) or (b) or (c) or (d)]relating to the most appropriate answer against the question number, in the answer booklet.

(1) Which of the following is **not** an assumption made in cost-volume-profit analysis?

(i) There is a single product or a constant sales mix.
(ii) Profits are calculated on a variable costing basis.
(iii) Total cost and total revenue are linear functions of output.

Which one is the most correct, out of the three?

(a) (ii) only.
(b) (iii) only.
(c) (i) only.
(d) none of the above.

(2) Which of the following equation or equations correctly denotes the calculation of margin of safety?

(a) (Expected sales – Break-even sales) / Expected Sales
(b) (Expected sales – Break-even sales) / Break-even sales
(c) (Break-even sales – Expected sales) / Expected sales
(d) (Break-even sales – Expected sales) / Break-even sales

(3) Which of the following statements are TRUE about marginal costing?

(i) Take into consideration the unavoidable cost.
(ii) The period costs are treated as expenses during the period in which they were incurred.
(iii) The product cost is identified with the goods that are produced.

(a) (i) and (ii) only.
(b) (i) and (iii) only.
(c) (ii) and (iii) only.
(d) All of the above.

(4) A company sells three products X, Y and Z. The contribution to sales ratios of the three products are 30%, 35% and 25% respectively. If the products are sold in the ratio of 3:4:3 respectively and the fixed cost is Rs.300,000/-, what would be the break-even sales revenue to the nearest rupee?
(a) 983,607
(b) 91,500
(c) 9,837
(d) None of the above.

(5) The total material variance is,
(a) the difference between the standard material cost for the actual production and the actual cost.
(b) the difference between the standard material cost for the budgeted production and the actual cost.
(c) the difference between the standard material cost variance and the actual production cost.
(d) the difference between the material cost variance and the total direct material cost variance.

For questions 6 to 10, state whether each statement given is "True" or "False". If True write 'T' or if False write 'F', in your answer booklet, against the relevant question number.

(6) Unlike in other decisions, in making replacement decisions the book value of the equipment under consideration is taken into account at the historical cost.

(7) In an interlocking accounting system, the cost and financial accounts are combined in one set of accounts.

(8) To maximize the profits in the short run the limiting factors should be used in such a manner that, the greatest contribution from those to profit is obtained each time the scarce resource is used.

(9) The fixed manufacturing overheads are allocated to the products and these are included in the inventory valuations in the variable costing system.

(10) Throughput accounting ratio is calculated by dividing the return per factory hour by the cost per factory hour.

(10 × 2 Marks = Total 20 Marks)
End of Part I

PART II

Section A

Answer <u>any two (2)</u> questions

<u>Question No. 02 (20 Marks)</u>

(a) Briefly explain the terms 'relevant cost' and 'irrelevant cost'. **(02 Marks)**

(b) RMW plc has the following details related to their operations in the three divisions for the month of August 2012.

	Division I (Rs.)	Division II (Rs.)	Division III (Rs.)	Total (Rs.)
Sales	650,000	450,000	300,000	1,400,000
Variable costs	400,000	150,000	200,000	750,000
Fixed cost				480,000

Fixed overheads are allocated to each division on the basis of sales revenue. From the total fixed cost incurred by the company, 75% are divided among the divisions equally as they are specific to each division.

You are required to decide which division or divisions should remain opened, if RMW plc wants to maximize their profits, assuming that the firm uses the relevant costing techniques. **(06 Marks)**

(c) RMK plc is making two items A and B. Material GG is being used for the production of both these items. The standard direct labour hrs per unit of production, the budgeted production levels and the actual production levels for a 15 week period are as follows:

	Standard direct labour hours	Budgeted production quantity	Actual production level
Item A	0.50 hours	46 000 units	45 000 units
Item B	0.60 hours	32 000 units	35 000 units

The standard wage rate is Rs 7.00 per hour.

Throughout the period under consideration there has been 55 workers working

The workers have worked at a standard 45 hour week.

The other actual details for the period are as follows:

Direct wages paid Rs 174 000

Material GG purchases 50 000 kgs which is worth Rs 100 000

Material GG price variance Rs 500 F

Material GG usage (Item A), 35000 kgs

Material GG usage variance (Item A) Rs 350 A

You are required to calculate:

(i) the direct labour variances.

(ii) the standard purchase price for material GG.

(iii) the standard usage of material GG for a unit of A item.

(12 Marks)

(Total 20 Marks)

Question No. 03 (20 Marks)

(a) Define the term 'budget'. **(02 Marks)**

(b) Briefly explain how the budgets can be used in planning the operations of an organization effectively, by giving attention to the stages in the planning process as well. **(09 Marks)**

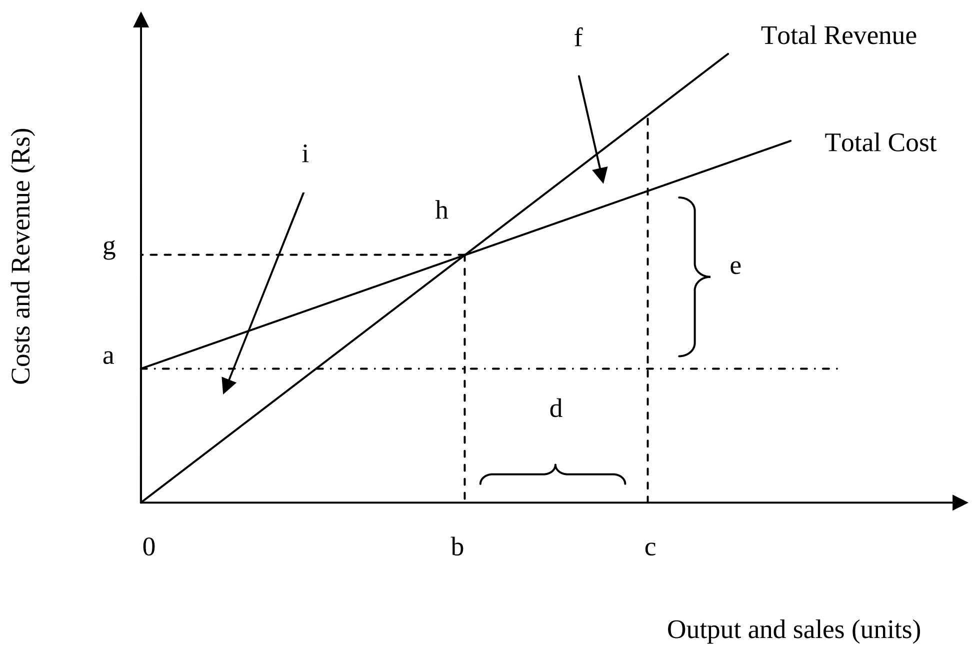
(c) Almost all the budgets are prepared based on the sales budget. Do you agree? Explain reasons for your answer. **(04 Marks)**

(d) Explain briefly the method of 'three-level budget' and identify when it can be used. **(05 Marks)**

(Total 20 Marks)

Question No. 04 (20 Marks)

(a) The following graph is related to the cost and revenues and the output and sales of firm AKC plc.



Assuming that the letter 'c' in the diagram denotes the re-order level, you are required to name the other areas depicted from points 'a' to 'h'. **(04 Marks)**

(b) AWC plc is a medium size manufacturer of plastic cans and the following details relates to this business in the year 2011.

The opening stock was 13,800 units

The closing stock was 15,000 units

The profit calculated based on marginal costing was Rs.180,000/-

The profit calculated based on absorption costing was Rs.250,000/-

A unit is sold at 30% above the total cost.

You are required to calculate the fixed overhead absorption rate per can. **(04 Marks)**

(c) AMC plc sells Product 'Blue' and the sales and production details for two periods are as follows:

	Period I (*in units*)	**Period II** (*in units*)
Sales	35,000	45,000
Production	30,000	44,000

Fixed manufacturing overhead per period is Rs.235,000/-. The firm absorbs the fixed manufacturing overheads into the cost of production at a unit rate based on the normal activity level of a period (which they consider to be 37,000 units per period).

Variable manufacturing cost of ten products of 'Blue' is Rs. 120/-.

The normal practice of the firm is, at the end of each period the under or over absorbed fixed manufacturing overheads are transferred to the profit and loss account, in order to calculate the manufacturing profit.

Selling price of ten units of 'Blue' is Rs.260/-.

You are required to:

(i) Prepare a statement indicating the manufacturing profit for Period II, with the absorption costing method.

(ii) Calculate the manufacturing profit for Period II, if the firm adopts the marginal costing method.

(12 Marks)
(Total 20 Marks)
End of Section A

Section B

Answer <u>any two (2)</u> questions

<u>Question No. 05 (20 Marks)</u>

(a) Briefly explain the purposes of transfer pricing and the available transfer pricing methods. **(07 Marks)**

(b) Transfer pricing can be used to manipulate the taxable profit of companies and thereby the arms length principle is introduced to minimize this issue. Define the term 'arms length principle' and identify the methods that can be used to implement this method. **(05 Marks)**

(c) KWL plc is a firm involved in data processing and consultancy services in the field of apparel manufacturing. The firm has several divisions that provide services to each other and also to external clients when there is an opportunity. The performance of the division managers is measured against targets given by the top management.

The consulting division received an opportunity to do a project for KKK plc in August. The total income from this project is Rs.40,000/-.

The data processing of this project which required 400 hours of processing time was carried out by the internal data processing division without using an external agency for this matter because they already had 400 chargeable skilled hours available in August.

The internal data processing division provided their service to the consultancy division in the month of November for this project with KKK plc, and the budgeted costs of internal data processing division for the year ending 31st December 2010, which is calculated by dividing the total into 12 equal monthly periods, were as follows:

Variable cost:

Skilled labour	Rs. 15,000 per month
Semi-skilled labour	Rs. 12,500 per month
Other processing costs	Rs. 8,750 per month
Fixed costs	Rs. 450,000 per annum

The skilled labour hours worked during the year is 9,000 hrs.

The practice of the firm is to recover costs on the basis of chargeable skilled labour hours which are budgeted to be 89% of skilled labour hours worked.

The external pricing policy of the internal data processing division is to add a 35% mark-up to its total budgeted cots per chargeable hour.

During November 2011, actual labour costs incurred by the internal data processing division were 2% lesser than expected. Further the other processing costs were 5% higher than the expected.

You are required to calculate the total transfer value that has to be charged from the consulting division for the 400 hours on its KKK plc project by the internal data processing division on the following bases:

(i) Market price.

(ii) Actual variable cost.

(iii) Standard variable cost + 45% mark up.

(08 Marks)
(Total 20 Marks)

<u>Question No. 06 (20 Marks)</u>

(a) UCC plc is planning to implement a new system in their organization. After implementing the new system the company expects that their cash revenues will increase by 15% during the first five years, then by 16% for next six years and thereafter the cash revenues will be stable.

For the new system, the company is expected to spend an amount of Rs.575,000/- initially and Rs.75,000/- annually. The cost of capital is 20%.

The present cash inflow is Rs.100,000/- and the time horizon is 15 years.

You are required to calculate the NPV and decide whether the company should proceed with the new system implementation or not. **(08 Marks)**

(b) UKK plc has the following details for the last three years

	Year 0	1	2	3
Investment	(100,000)			
Sales revenue		150,000	130,000	110,000
Operating expenses		70,000	60,000	50,000
Depreciation		40,000	40,000	40,000
Annual income		40,000	30,000	20,000

You are required to calculate the accounting rate of return using the information given above.

(03 Marks)

(c) UNN plc has revealed the following information about one of their projects under consideration for accepting.

The total project cost is Rs.108,000/-.

The cash flow expected to be generated is Rs.33,600/- annually for 5 years.

You are required to calculate the IRR of this project. **(05 Marks)**

(d) UVD plc has the following details related to one of their products.

The total demand for the product is 8,000 units.

A set up cost of Rs.50/- (including labour and other expenditure for setting up a production run).

The holding cost Rs.3/- per unit per year.

You are required to determine the number of units that should be scheduled for a production run to result in a lowest possible cost. **(04 Marks)**

(Total 20 Marks)

Question No. 07 (20 Marks)

Given below is an extracted part from the balance sheet and a profit and loss statement of LKB firm.

		31/12/2011 (Rs.)	31/12/2010 (Rs.)
Sales (50% credit)		81,000,000	45,000,000
Cost of Sales		(56,700,000)	(29,250,000)
Operating expenses		(18,900,000)	(9,000,000)
	Net profit Before Tax	5,400,000	6,750,000
	Taxation	-	-
	Net profit After Tax	5,400,000	6,750,000
** Interest included in the Operating Expenses		3,900,000	1,500,000
Non-Current Assets (net)		40,500,000	18,000,000
Inventory		29,700,000	13,500,000
Debtors (net)		27,000,000	9,000,000
Cash at bank		(18,000,000)	9,000,000
	Total Assets	79,200,000	49,500,000
Share Capital		60,300,000	45,000,000
Non-current liabilities		10,800,000	-
Current liabilities		8,100,000	4,500,000
		79,200,000	49,500,000

The inventory balance on the 1st January 2010 was Rs.11,250,000/-.

You are required to:

(a) Calculate the possible Liquidity, Profitability and Long term solvency ratios from the given extracted information.

(b) If you are manager of this firm how would you improve the Liquidity, Profitability and Long term solvency of the firm.

(Total 20 Marks)
End of Section B
End of Part II
End of Question Paper