



THE INSTITUTE OF CHARTERED ACCOUNTANTS OF SRI LANKA

CERTIFICATE IN ACCOUNTING AND BUSINESS - II EXAMINATION
SEPTEMBER 2010

05204 - FUNDAMENTALS OF MANAGEMENT ACCOUNTING AND
BUSINESS FINANCE

Time allowed : 3 hours

Marks : 100 marks

Instructions to candidates:

- (1) (i) Part "A" - Answer **both** questions.
(ii) Part "B" - Answer any **four (4)** questions.
- (2) Submit all workings.
- (3) Begin each answer on a separate page.
- (4) All answers should be in **one language**, in the **medium applied** for, in the **answer booklets** provided.

PART "A"
Answer both questions

Question No. 01

Multi-Products Ltd produces various consumer items. Production takes place at various factories throughout Western Province and coordinated and managed from the Colombo Head Office.

The item Zee is manufactured at its factory located at a prime location in Colombo. The following operating information is available for Zee applicable for the next five years. Item Zee is not expected to have any demand after 5 years.

Selling price per unit (Rs.)	100
Variable cost per unit (Rs.)	40
Product specific fixed cost per annum (excluding depreciation) Rs. million	10
Apportionment of Common Head Office costs per annum Rs. million	10
No. of units sold annually	500,000

The company has received an offer from a property developer to buy the factory premises for Rs 100 million. If the offer is accepted an additional Rs 20 million can be realized by disposal of machinery.

The management has deliberated on this offer and way forward thereafter and the following alternative options have been identified.

Option 1

Continue with the manufacture of Zee at Colombo factory for next 5 years after which the property could be disposed at a price of Rs. 110 million. There is no residual value of machinery after 5 years.

Option 2

Relocate the manufacturing operation out of Colombo for next 5 years by leasing suitable factory premises at an annual lease rental of Rs. 10 million payable at the beginning of each year. Cost of relocation of machinery and employees is Rs. 18 million and there is no residual value of machinery after 5 years. There will not be any changes in the production costs.

Option 3

Outsource production of Zee at a cost of Rs 60 per unit in which event product specific annual fixed costs incurred by Multi-Products can be reduced by Rs 5 million. But employee redundancy payment of Rs. 30 million has to be paid immediately.

Cost of capital of Multi-Products is 14% per annum.

Your CEO is in the process of preparation of a Board Paper and requests you to provide the following.

(Ignore taxation)

- (a) Evaluation of each of the above options using the NPV criteria including workings with ranking them in order of preference. (14 marks)
 - (b) Calculation of IRR of the preferred proposal. (3 marks)
 - (c) A brief explanation as to the superiority of NPV and IRR criteria over other methods of capital appraisal. (3 marks)
- (Total 20 marks)

Question No. 02

Following information has been extracted from the financial statements of Alpha PLC for the year just ended.

<u>Income Statement</u>	(Rs. million)
Profit before interest and tax	13.0
Less: Interest	<u>(3.0)</u>
Net profit before tax	10.0
Corporate taxation (@ 40%)	<u>(4.0)</u>
Net profit after tax	<u>6.0</u>

<u>Balance Sheet</u>	
Stated Capital (300,000 Ordinary Shares)	35.0
Retained Earnings	8.0
12% Debentures (250,000 debentures of Rs 100/- each)	25.0

Total equity & liabilities	68.0
	=====
Total assets	68.0
	=====

Debentures are redeemable in another five years and annual interest in respect of the year just ended has been paid. Alpha's current Price Earnings Ratio is 15. Alpha maintains a dividend payout of 50% and last year's dividend has already been paid.

Alpha has now decided to invest immediately Rs. 21.0 million in a new project which will yield an additional return (before interest and tax) equal to Alpha's last year's Return on Assets. Retained earnings from last year's profits will be used to part finance this project. Alpha is considering the following options for funding the balance part of the investment.

Option 1: Immediately making a rights issue of ordinary shares at 25% discount to the current market price of the shares

Option 2: Issue immediately 12% debentures (5 year tenure) at par

You are required to;

- a. Calculate:
 - i. Earnings per share for the year just ended and thereby the market price of Alpha's ordinary share.
 - ii. Dividends paid and Retained Earnings for the last year and balance funding required
 - iii. Total Assets and Equity at the beginning of the current year
 - iv. Return on Equity and Return on Assets for the year just ended based on equity and assets as of the beginning of the current year
 - v. Amount by which the profit before interest and tax would increase in the current year

(6 marks)
- b. If the balance funding is generated under Option 1 above, calculate:
 - i. Number of new shares to be issued and total number of shares thereafter
 - ii. Profit after tax, Earnings per share and Return on Equity for the current year
 - iii. Expected Market price of the shares

(6 marks)
- c. If the balance funding is generated under Option 2 above, calculate:
 - i. Profit after tax, Earnings per share and Return on Equity for the current year
 - ii. Expected Market price of the shares

(3 marks)
- d. Recommend with reasons which option should be pursued to generate balance funding

(2 mark)
- e. Having looked at the above results Alpha's CEO stated that all future projects should be financed through debt as it will enhance share price. Discuss the validity of this statement.

(3 marks)
(Total 20 marks)

PART "B"
(Answer any four (4) questions)

Question No. 03

Mag. Holdings (Pvt.) Ltd., (MHL) manufactures computer printers for the local market and it also manufactures two components A and B as well. MHL has forecasted that they need 5,000 units of component A and 4,000 units of component B for a month.

Component A is manufactured exclusively using machine type 01 and component B is manufactured exclusively using machine type 02. Four (04) machines of each type are available for each of the two components A and B.

The factory operates 40 hours per week and four weeks per month. Employees of the factory are willing to work up to 50% of normal hours as overtime.

The material cost of a component is as follows.

A	Rs. 1,900
B	Rs. 900

Time required by each machine to handle each component is as follows,

Component	Minutes per component	
	Machine type 1	Machine type 2
A	12	-
B	-	15

The cost of operating the machines is,

Labour	Machine type 1	Machine type 2
Labour cost per Normal hour (Rs)	1,000	1,200
Overtime cost per hour (Rs)	1,500	1,800
Overheads (Rs)	450,000	168,000

Above overheads are for a calendar month and 1/3 of which is variable.

A local subcontractor has offered to supply any quantity of component A and B at a price of Rs. 2,200 and Rs. 1,200 per unit respectively.

- (a) Calculate relevant manufacturing cost of a unit of components A and B when manufactured
- (i) during normal hours only; and
 - (ii) during normal hours and using overtime hours. (8 marks)
- (b) Advise whether MHL should manufacture or purchase the components from the subcontractor and if so in what quantities. (4 marks)
- (c) What are the other factors that the company should consider if they are to subcontract the manufacturing?

(3 marks)
(Total 15 marks)

Question No. 04

XYZ manufactures three products x,y and z through common process and following data are extracted from the company records.

Product	Units produced	Total sales value at split off (Rs.)	Further processing costs (Rs.)	Sales value after further processing (Rs.)
X	25,000	9,000,000	600,000	9,200,000
Y	12,000	4,800,000	400,000	6,000,000
Z	10,000	-	500,000	5,500,000

Product Z does not have a readily available market without further processing. Joint production costs up to the point of splitting were Rs. 9,450,000 for the period. The common process also results in a by product P and during the period 5,000 units of P were produced and sold at a price of Rs. 15 per unit after incurring Rs. 5 per unit as further processing costs.

You are required to;

- Determine how the joint costs are apportioned to each product using physical measurement method. (4 marks)
 - Determine the apportionment of joint costs to each product using sales value at split-off point / notional selling price method. (4 marks)
 - Recommend which product/s should be further processed to maximise net contribution to profit and determine the gross profit margin of each product if joint costs are apportioned as per physical measurement method. (7 marks)
- (Total 15 marks)

Question No. 05

CAL PLC is engaged in import and distribution of pigments for paint industry. The summarized balance sheet of the company as at 1 April 2010 is as follows.

	Rs.	Rs.
<u>Non Current Assets</u>		
Property Plant and Equipment	1,000,000	
Less - accumulated depreciation	<u>240,000</u>	760,000
<u>Current Assets</u>		
Stocks	302,500	
Debtors (from March sales)	<u>312,500</u>	<u>615,000</u>
Total assets		<u>1,375,000</u>
Stated capital		750,000
<u>Long term liabilities</u>		
Loan (15% per annum)		500,000
<u>Current liabilities</u>		
Dividend payable	12,500	
Selling expenses payable	10,000	
Bank overdraft	<u>102,500</u>	<u>125,000</u>
		<u>1,375,000</u>

The following has been forecasted for the next three months.

Month	Sales - Rs.	Purchases - Rs.	Overheads - Rs.
April	1,875,000	1,250,000	250,000
May	2,500,000	1,875,000	312,500
June	3,750,000	3,500,000	375,000

Overheads to be apportioned as follows.

Month	Amount (Rs.)	Admin	Selling	Finance
April	250,000	75%	20%	5%
May	312,500	80%	15%	5%
June	375,000	75%	20%	5%

All sales are on credit basis and 80% of the collections are made during the month of sales and balance 20% is settled during the following month. A 4% discount is given for the settlements made during the month of sale.

Payment for purchases is made during the month of purchase itself in order to obtain 10% discount offered by the supplier.

Stock levels are expected to remain constant and the Property Plant and Equipment are depreciated at the rate of 12% per annum on cost. The depreciation for the period from April to June is included in the administration expenses. Administration and finance expenses are paid in the month they are incurred and selling expenses are paid in the following month. The proposed dividend will be paid in April and loan interest for the three months will be paid in June which is not included in finance expenses.

You are required to prepare following.

- Cash budget for the three months, April to June 2010. (5 marks)
- Forecasted Income Statement for the three months, April to June 2010 (4 marks)
- Forecasted balance sheet as at 30 June 2010 (3 marks)
- Explain why the decrease in Bank overdraft as at 30 June is not as same as the profit figure for the period. (3 marks)

(Total 15 marks)

Question No. 06

ABC PLC manufactures and sells a special type of bottles and the company operates a standard costing system. For the first week of August 2010, following data were available.

Production budget

Material x 175,000 kgs @ Rs. 8.50 per kg.
 y 62,000 kgs @ Rs. 4.50 per kg.

Direct labour 115,000 hours @ Rs. 10 per hour.

Variable overheads Rs. 480,000

Fixed overheads Rs. 1,520,000

Total budgeted output is 118,000 bottles.

(6)

Actual results for the week were as follows.

Material	x	172,000 kgs at a cost of Rs. 1,410,400
	y	61,000 kgs at a cost of Rs. 244,000

Actual production was 112,000 bottles for the week.

Direct labour 114,000 hours @ Rs. 1,168,500

Variable overheads were Rs. 476,500

Fixed overheads were Rs. 1,530,000.

Variable overheads are absorbed at a predetermined direct labour hour rate and fixed overheads are absorbed at predetermined rate per units of output.

- (a) Calculate the standard cost per unit. (2 marks)
 - (b) Calculate all relevant variances for the period. (11 marks)
 - (c) Calculate the total cost variance for the week. (2 marks)
- (Total 15 marks)

Question No. 07

Melanka (Pvt) Ltd. manufactures two different types of pens namely 'school-write' and 'executive-write'. There is a substantial demand for both pens and the selling price and the cost structure (per unit) is as follows.

	School-write	Executive-write
Selling price - Rs.	42.50	53.50
Direct material - Rs.	7.00	9.00
Labour	6 minutes	9 minutes
Machine	5 minutes	4 minutes
Overheads - Rs.	2.00	5.00

50% of the overheads are considered as variable and cost of a labour hour is Rs. 120. Cost of a machine hour is Rs. 150. During the next week 45 labour hours and 26 machine hours are available for production.

Develop a linear programming model and solve the same using linear programming graphical method to determine the best product mix to the company.

(15 marks)