THE OPEN UNIVERSITY OF SRI LANKA
FACULTY OF ENGINEERING TECHNOLOGY
BACHELOR OF INDUSTRIAL STUDIES
FINAL EXAMINATION - 2006 / 2007

MEM 5251 - INDUSTRIAL ECONOMICS, ACCOUNTING AND MARKETING

DATE : 09TH MARCH 2007
TIME : 0930 HRS. - 1230 HRS.
DURATION : THREE (03) HOURS.

INSTRUCTIONS :
(a) Answer five (05) questions; two from Part A, two from part B and one from Part C.
(b) All questions carry equal marks.

Part A - Industrial Economics

1. Identify different form of economic systems and discuss how differently they answer basic economic questions relating to allocation of resources.

(20 marks)

2. Discuss the factors that determine the following in a free market economy.

(a) Quantity of goods demanded by consumers. (10 marks)
(b) Flow (supply) of goods to the market. (10 marks)

3. Examine the impact of the government interventions in the operation of the price mechanism in the following situations.

(a) Fixing of maximum prices.
(b) Fixing of minimum prices.

What practical measures could be adopted to mitigate the adverse impact of each intervention listed above?

(20 marks)

Part B - Accounting

4. A manufacturer has a capacity to produce 50,000 units of product X per month. Direct material cost per unit is Rs. 50/=; direct wages for production of a unit is Rs 20/= and other variable expenses per unit are Rs. 30. Total fixed overhead expenses per month are Rs. 6000,000/=. He proposes to sell the production at Rs. 120/= per unit.

You are required to calculate:
(a) Contribution per unit of product X (4 marks)
(b) Breakeven volume of production per month (4 marks)

(c) Breakeven sales value per month (3 marks)
(d) Margin of safety at full capacity utilization (3 marks)
(e) The volume of product X to produce to give a profit of Rs. 100,000 (3 marks)
(f) Price / Volume (P/V) ratio for the product X. (3 marks)

5. **Set out below is the trail balance extracted from the books of account of City Tire Traders as at 31.03.2006.**

	Dr (Rs'000)	Cr (Rs'000)
Land and buildings	4,500	
Office equipment	800	
Motor vehicles	2,200	
Accumulated Depreciation of buildings		330
Accumulated Depreciation of Office equipment		260
Accumulated Depreciation of Motor vehicles		440
Sales		22,500
Purchases	12,650	
Stocks in trade as at 01.04.2005	2,240	
Carriage inwards	940	
Salaries & wages	2,250	
Rates, electricity and water	560	
Telephone & postage expenses	1,100	
Transport expenses	860	
Insurance of stocks	120	
Selling & distribution expenses	560	
Drawings	850	
Bank loan interest	200	
Trade debtors	2,420	
Trade creditors		2,600
Capital		5,800
Bank overdraft		550
Profit and loss account		1,120
Cash and bank balances	1,350	
	33,600	**33,600**

You are given the following additional information :
(Ignore taxation.)

(i) The stock in trade as at 31.03.2006 was valued at Rs. 2,330,000/=.
(ii) The depreciation to be provided at the following percentages on cost:

Buildings (Cost Rs. 2,200,000/=)	-	5%
Office equipment	-	20 %
Motor vehicles	-	20%

(iii) The bills for electricity for Rs 35,000/= and telephone for Rs 55,000/= were received in April 2006.

(iv) A debtor valued at Rs 120,000/= should be written off as bad debts.

(v) The insurance policy for the year from 01.10.2005 to 30.09.2006 cost Rs. 80,000/=

You are required to prepare:

(a) The Trading, Profit and Loss Account for the year ended 31.03.2006

(10 marks)

(b) The Balance Sheet as at 31.03.2006

(10 marks)

6. **The abridged Profit and Loss Account and Balance Sheet of ABC Ltd for the year ended 31st March 2006 are given below:**

		(Rs '000)	(Rs '000)
Sales			12,000
Less : Cost of sales			
Stock as at 31.03.2005		1,100	
Purchases		7,400	
		8,500	
Stock as at 31.03.2006		1,300	7,200
Gross Profit			**4,800**
Less: Expenses			
Administration expenses		1,450	
Selling and distribution expenses		1,200	
Final expenses		950	3,600
Net Profit			**1,200**
Balance Sheet As At 31.03.2006			
Fixed Assets			4,000
Current Assets			
Stock in trade		1,300	
Debtors		2,500	
Bank and cash balances		1,200	
		5,000	
Current Liabilities			
Trade creditors	2,700		
Bank overdraft	1,300	4,000	1,000
			5,000
Equity			
Share capital			2,800
Profit and loss account		1,000	
Profit for the year		1,200	2,200
Equity capital (Rs. 3,800 as at 31.03.2005)			**5,000**

Note: Credit sales were Rs. 6,000,000/= while debtors as at 31.03.2005 stood at Rs. 1,500,000/=.

From the information given above you are required to compute the following ratios for the year ended 31.03.2006:

(a) Gross profit ratio
(b) Net profit ratio
(c) Return on capital employed (ROCE)
(d) Stock turnover ratio
(e) Current ratio
(f) Quick asset ratio
(g) Debtors turnover ratio

(20 marks)

Part C - Marketing

7. Give a description of any two (02) of the following components of the marketing mix (variables).

(a) Product
(b) Price
(c) Place (Channels of distribution)
(d) Promotion

(20 marks)

8. Describe the importance of market segmentation and identify the criteria on which markets can be segmented into distinct categories

(20 marks)

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