THE INSTITUTE OF CHARTERED ACCOUNTANTS OF PAKISTAN

PROFESSIONAL EXAMINATIONS **WINTER 2001**

December 03, 2001

MANAGEMENT ACCOUNTING **(MARKS 100)**

PE-2 (PAPER-1) **(3 HOURS)**

Q.1 The 'ZZ' Co. manufactures a line of four related products in a single factory which is currently operating below capacity. Annual sales and cost of the products are shown below:

	W	X	Y	Z	Total
	Rs.000	Rs.000	Rs.000	Rs.000	Rs.000
Sales	2,000	2,500	1,000	500	6,000
Factory cost of sales:					
Materials	300	400	200	40	940
Labour	500	600	400	100	1,600
Overhead	600	800	500	100	2,000
	1,400	1,800	1,100	240	4,540
Gross Profit/(Loss)	600	700	(100)	260	1,460
Selling overhead	300	375	150	75	900
Operating Profit/(Loss)	300	325	(250)	185	560

The factory overhead costs allocated to products are based on pre-determined overhead rates of which 40% is estimated to be variable at the current operating volume. Selling overheads are applied to products based on 15% of sales value, the variable component of this being approx. 5% of sales.

The loss being reported in the above table against product Y is indicative of recent results and has led the management to consider its withdrawal. It is estimated that if product Y was to be withdrawn a saving of fixed factory and selling costs of Rs.100,000 would occur.

Required:

a) Determine whether on financial grounds, Y should be withdrawn. Briefly explain and qualify your answer. **(12)**

b) The chief executive believes that in the long run a product that does not cover its costs should not be retained. Explain whether it is conceivable that in the long run it might be profitable to keep Y in the product line. **(08)**

Q.2 The following budgeted and actual data relates to 'calculus plc' for the past three periods:

Budget	Period 1	Period 2	Period 3
Sales (units)	10,000	14,000	12,200
Production (units)	8,000	14,200	12,400
Fixed overheads	Rs. 10,400	Rs.19,170	Rs.17,360
Actual			
Sales (units)	9,600	12,400	10,200
Production (units)	8,400	13,600	9,200
Fixed overheads	[illegible]	[illegible]	[illegible]

The value of the opening and closing stock of the units produced is arrived at b[illegible]. The budgeted and actual opening stock for the period 1 was 2,600 units and its va[illegible]ded Rs.3,315 of fixed overheads. The company absorbs its fixed overheads via a predete[illegible] overhead rate per unit. It is assumed that variable costs per unit and selling prices per uni[illegible] the same for each of the period.

Required:

a) Calculate the under or over recovery of fixed overhead for each period and indicate how it will affect the profit or loss. **(08)**

b) 'Absorption costing will produce a higher profit than marginal costing'. Explain why you agree or disagree with this statement making reference to the data provided above. **(07)**

Q.3 Contemplation Ltd. is a company that carries on business as film processors. For the past few years it has been making losses due to the low price competition.

The company's balance as at 30 June 19X8 was as follows

	Rs.'000
Fixed assets	3,600
Net current assets	3,775
	7,375
Share capital	
Ordinary shares of Rs.10 each fully paid	10,000
8% cumulative redeemable shares of Rs. 10 each, fully paid	2,500
Reserves	
Profit and loss balance	(8,625)
Debentures	
11% debentures redeemable 19X15	3,500

The company has changed its marketing strategy and is now aiming at the specialist portrait print market. It is expected that the company will earn annual profit after tax of Rs. 1,500,000 for the next five years – the figure is before an interest charge. Income tax is assumed to be at rate of 35%.

The directors are proposing to reconstruct the company and have produced the following proposal for discussion.

a) To cancel the existing ordinary shares.

b) The 11% debentures are to be redeemed and the debenture holders issued in exchange
   i) Rs.3,000,000 14% redeemable debentures 19X35, and
   ii) 200,000 ordinary shares of Rs.2.5 each, fully paid up

c) The 8% cumulative redeemable shareholders to be issued with 200,000 ordinary shares of Rs.2.5 each fully paid up, in payment of four years' arrears of cumulative dividend.

d) The existing ordinary shareholders will be issued with 350,000 ordinary shares of Rs.2.5 each, fully paid up.

In the event of liquidation, it is estimated that net realizable value of the assets would be Rs.3,100,000 for the fixed assets and Rs.3,500,000 for the net current assets.

Required:

a) To prepare a balance sheet as at 1 July 19X8 after the reconstruction has been effected. **(06)**

b) To prepare computations to show the effect of the proposed reconstruction scheme on each of the debenture holders, redeemable capital shareholders and ordinary shareholders. **(08)**

c) To write a brief report to advise a shareholder who owns 10% of the issued ordinary share capital whether or not to agree to the reconstruction as proposed. The shareholder has informed you that he feels the proposals are unfair. **(06)**

Q.4 a) Distinguish between
- i) Deterministic system and probabilistic system
- ii) Data and information
- iii) Simplex mode and duplex mode
- iv) Strategic information and operational information.

b) Define the term local area network and outline the range of structure and technologies used in different type of LAN. **(0**

Q.5 A Company within the food industry mixes powdered ingredients in two different processes to produce one product. The output of process 1 becomes the input of Process 2 and the output of Process 2 is transferred to the Packing department.

From the information given below you are requested to open accounts for Process 1, Process 2, Abnormal scrap and Packing department and to record the transactions for the week ended 11 Nov.

Process 1
Input:

Material A	6,000 kg @ Rs. 0.50/kg
Material B	4,000 kg @ Rs. 1.00/kg
Mixing labour	430 hours @ Rs. 2/hour
Normal scrap	5% of weight input
Scrap was sold for	Rs. 0.16/kg
Output was	9,200 kg

There was no work-in-process at the beginning or end of the week

Process 2
Input :

Material C	6,600 kg @ Rs. 1.25/kg
Material D	4,200 kg @ Rs. 0.75/kg
Flavoring essence	Rs. 300
Mixing labour	370 hours @ Rs. 2/hour
Normal waste	5% of weight input
Output was	18,000 kg

There was no work-in-process at the beginning of the week but 1,000 kg were in process at the end of the week and were estimated to be only 50% complete so far as labour and overhead were concerned.

Overhead of Rs. 3,200 incurred by the two processes was absorbed on the basis of mixing labour hours.

Within process 1 abnormal scrap arose because some batches failed to pass the quality control at the end of each mix. All scrap was sold for cash on the last day of the week. Any resultant balance on the abnormal scrap account was transferred to profit & loss account. **(20)**

Q.6 The following budgeted information relates to BMW Plc for the forthcoming period:

	Products		
	XYI	YZT	ABW
	'000	'000	'000
Sales & production (units)	50	40	30
	Rs.	Rs.	Rs.
Selling price – per unit	45	95	73
Prime cost – per unit	32	84	65

	Hours	Hours	
Machine Deptt. (machine hrs per unit)	2	5	4
Assembly Deptt. (direct labour hrs per unit)	7	3	2

Overheads allocated and apportioned to production departments (including service departmen costs) are to be recovered in product costs as follows:

Machine department at Rs. 1.20 per machine hour
Assembly department at Rs. 0.825 per direct labour hour

You ascertain that the above overheads could be re-analyzed into 'cost pools' as follows:

Cost pool:	Rs.000	Cost drivers	Quantity for the period
Machining Services	357	Machine hours	420,000
Assembly Services	318	Direct labour hours	530,000
Set up costs	26	Set ups	520
Order processing	156	Customer orders	32,000
Purchasing	84	Suppliers' orders	11,200
	941		

You have also been provided with the following estimates for the period:

	XYI	YZT	ABW
Number of set ups	120	200	200
Customer orders	8,000	8,000	16,000
Suppliers' order	3,000	4,000	4,200

Required: Prepare & present profit statements using the Activity based costing. **(10)**

(THE END)