THE INSTITUTE OF CHARTERED ACCOUNTANTS OF PAKISTAN

Professional Examinations Summer 2002

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MANAGEMENT ACCOUNTING **(MARKS 100)**
PE-2 (PAPER-1) **(3 hours)**

Q.1 The management accountant of United Oil Company is about to make a presentation to the top managers of its four divisions. These divisions are:

a. Oil & Gas Upstream – the exploration, production and transportation of oil and gas.
b. Oil & Gas Downstream – the refining and marketing of oil and gas
c. Chemical Products
d. Copper Mining

Under the existing internal accounting system, costs incurred at the corporate headquarters are collected in a single pool and allocated to each division on the basis of the actual revenues of each division. The central office costs for 1999 are (in thousands).

	Rs.
Interest on loan	100,000
Corporate salaries	5,000
Accounting	5,000
General marketing	5,000
Legal	5,000
Research & Development	10,000
Public affairs	10,400
Personal and payroll	9,600
	150,000

Public affairs includes the public relations staff, the lobbyists and the donations that the company makes to charities and non-profit institutions.
Summary data relating to the four divisions for 1999 are (in thousands)

	Oil & Gas Upstream	Gas & Oil Downstream	Chemical Products	Copper Mining	Total
	Rs.	Rs.	Rs.	Rs.	Rs.
Revenue	350,000	800,000	200,000	150,000	1,500,000
Operating costs	150,000	750,000	190,000	160,000	1,250,000
Operating income	200,000	50,000	10,000	(10,000)	250,000
Identifiable assets	700,000	300,000	150,000	100,000	1,250,000
Number of employees	900	1,200	600	300	3,000

The top managers of each division share in a divisional income bonus pool. Divisional income is defined as operating income less allocated central office costs.

The management accountant is about to propose a change in the method used to allocate central office costs. He favours collecting these costs in four separate pools.

- Cost pool 1 : Allocated using identifiable assets of division
  Cost item : Interest on loans
- Cost pool 2 : Allocated using revenue of division
  Cost item : Corporate salaries, accounting, general marketing, legal, research and development
- Cost pool 3 : Allocated using operating income (if positive) of division, with only divisions with positive operating income included in the allocation base.
  Cost item : Public affairs
- Cost pool 4 : Allocated using number of employees in division
  Cost item : Personnel and payroll

Required:

a) Compute the divisional income of each of the four divisions when central office costs are allocated using revenues of each division. **(05)**

b) Compute the divisional income of each of the four divisions when central office costs are allocated to the four cost pools. **(10)**

c) What are the strengths and weaknesses of the management accountant's proposal relative to the existing single-cost pool method. **(05)**

Q.2(a) Gulzar Company distributes two products: Gadgets and Supergadgets. Gulzar buys the products from a manufacture that attaches the Gulzar label to them.

The year 2000 planned and actual results are stated below. The plan was adopted in late 1999 based on Gulzar's estimates of market share for each product. During the first quarter of 2000 it seemed likely that the total market for the products would be 10% less than Gulzar had estimated. In an attempt to prevent planned unit sales from declining by 10%, Gulzar's managers instituted a marketing campaign consisting of price reductions and increased advertising. The Supergadet was emphasized over the Gadget in this campaign.

Gulzar Company
Income Statement for 2000
(all figures in thousand)

	Gadgets		Supergadgets		Total	
	Plan	Actual	Plan	Actual	Plan	Actual
Unit sales	240	172	160	148	400	320
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Revenue	3600	2537	4800	4255	8400	6792
Variable costs	3000	2150	3200	2960	6200	5110
Contribution margin	600	387	1600	1295	2200	1682
Unallocated costs:						
Selling					500	500
Advertising					500	530
Administration					200	203
Total unallocated costs					1200	1233
Income					1000	449

Required:

Write a memorandum to the CEO of the company assessing the success, or lack thereof, of the marketing program (price reduction and increased advertising). **(20)**

Q.2(b) The Gill Company produces and distributes a wide range of sports goods. One of its division, the Racket Division, manufacturers and sells squash rackets. The demand for these rackets is relatively insensitive to price changes. The Racket Division is considered to be an investment center and in recent years has averaged a return on investment of 20%. The following data are available for the Racket Division and its products:

Total annual fixed costs	(Rs.)	5,000,000
Variable cost per racket	(Rs.)	1,500
Average number of rackets sold each year	(Nos.)	10,000
Average operating assets invested in the division	(Rs.)	8,000,000

Required:

What is the minimum selling price per unit that the Racket Division could charge in order for the division manager to get a favourable performance rating. Management considers an ROI below 20% to be unfavourable. **(05)**

Q.3 Ace Company, a large manufacturer of domestic appliances has decided to decentralize its distribution system. It will close the central warehouse and establish four regional warehouses, each of which will be based on a central main frame computer with on-line links to regional warehouses where data entry of customer orders and stock replenishment will take place. It has also decided to implement on ERP solution. In the first phase, modules covering stock control, order processing and sales accounting procedures will be implemented.

Required:

You have been assigned the responsibility of planning the implementation of the above system. Describe the issues which would need consideration, particularly the method of changeover which you would recommend. **(15)**

Q.4 The managing director and majority shareholder of a private company, Al-Hadeed Company, has asked your opinion as an Accountant on the best course of action to be taken in the following circumstances.

The company has a wholly owned subsidiary, Yakeen Limited, which is run efficiently but was taken over in a boom period. The subsidiary supplies specialised components to the holding company at current market rates. Owing to the fall in prices and the writing down of the company's assets at the rate of Rs 700,000 a year, the company has been showing losses recently at an average of Rs 420,000 a year. As no foreseeable change in market conditions is likely, the position is expected to continue and cessation of business has been contemplated.

Yakeen Limited has now received the offer of a long term contract for the supply of certain components to the value of Rs 750,000 annually, the additional cost of production being estimated at Rs 450,000. At the same time an outlay of Rs 1,000,000 would be required for additional working capital and machinery. The offer of the contract is not considered by the Board of holding company to be very acceptable since estimated losses of Rs 120,000 a year would still be incurred besides the capital outlay required. Nevertheless, some hesitation is felt as in effect, for Rs 120,000 a year, the delivery of the specialized components required by the holding company could be assured.

In view of the hesitation of Yakeen Limited the company offering the contract has made a further offer, to take over the subsidiary on a share-exchange basis of 120,000 of their Rs10 shares quoted at Rs 15, which is considerably more than would be obtained in the event of a shut-down.

The managing director has intimated that for personal reasons, he would not consider any proposal likely to exceed a period of eight years; he suggested that cessation of business at the end of that time be assumed, when the assets at present held by Yakeen Limited might be sold for Rs 500,000. If the company accepted the offer of the contract and acquired the additional assets, the total saleable value of its assets in eight years.' time would be about Rs 1,100,000.

Investments in other companies like Yakeen Limited are expected to yield 10 per cent per annum. Relevant figures obtainable from interest tables are:

Present value of Re 1 in eight years	0.467
Present value of Re 1 per annum for eight years	5.335

Required:
Analyze the information given above and prepare a preliminary report on the best course of action that the management may take. **(20)**

Q.5 Drug House Ltd , a manufacturer of patent medicines and personal hygiene products, was finding it expensive to promote this range of items through established retailers. It therefore, some ten years ago, acquired a well-known chain of retail chemists and modernized its shops. This expansion enabled Drug House Ltd to enter a new segment of the market.

Several of the company's directors now believe that this policy did contribute to increased sales but that neglect of its traditional business allowed competitors to attack its own brands. This has led to a less than expected return on its operating capital.

In order to rectify the situation, it has now been proposed that Drug House Ltd should enter into negotiations with Medicines Ltd, a family-controlled pharmaceutical supplier which imports unbranded drugs. Medicines Ltd. stopped manufacturing and subscontracts all its quality control work to specialists centres. Its premises are equipped as a warehouse and distribution centre.

Extracts from the past two years' annual accounts filed are summarized as follows:

	Drug House Ltd		**Medicines Ltd**	
	1998/1999	1999/2000	1998/1999	1999/2000
	Rs.	Rs.	Rs.	Rs.
Income statement items:				
Sales (excludes GST)	200,854	230,985	62,400	63,835
Cost of sales	158,343	178,568	44,050	43,768
Gross Profit	42,511	52,417	18,350	20,067
Interest (net)	4,779	5,238	1,250	1,100
Profit before tax	37,732	47,179	17,100	18,967
Taxation	10,320	13,210	5,472	5,690
Net profit after tax	27,412	33,969	11,628	13,277
Dividends	14,835	15,000	9,800	10,700
Retained Earnings	12,577	18,969	1,828	2,577

	Drug House Ltd		**Medicines Ltd**	
	1998/1999	1999/2000	1998/1999	1999/2000
	Rs.	Rs.	Rs.	Rs.
Balance sheet items:				
Issued shares	100,000	100,000	100,000	100,000
Share premium	25,110	25,110	3,000	3,000
Retained profit	80,217	99,186	2,750	5,327
	205,327	224,296	105,750	108,327
Loan capital	28,000	28,000	8,500	9,000
	233,327	252,296	114,250	117,327

Over the last three months, the ordinary shares in the two companies have been traded within the following price ranges:

Drug House Ltd (Rs 10 share)	Rs. 237 to 251
Medicines Ltd (Rs.100 share)	Rs. 180 to 195

30% of Drug House Ltd shares are in the hands of financial institutions; 15% are owned in small lots; the remaining shares are held by the sponsor and his family. Many of the members of the family have made it known that they would press for a reasonable bid to be accepted.

Required:

(a) To advise Drug House Ltd's directors whether a merger with Medicines Ltd would be to the advantage of Drug House Ltd shareholders; **(10)**

(b) To recommend an appropriate bid price that in addition to being satisfactory to the members, would also be of interest to the financial institutions; **(10)**

(THE END)