THE INSTITUTE OF CHARTERED ACCOUNTANTS OF PAKISTAN

PROFESSIONAL EXAMINATIONS SUMMER 2001

June 06, 2001

MANAGEMENT ACCOUNTING **(MARKS 100)**

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

Q.1 RB Ltd makes and sells one product, the standard production cost of which is as follows for one unit:

		Rs.
Direct labour 3 hours at Rs. 6 per hour		18
Direct material 4 kgs at Rs.7 per kg		28
Production overhead:	Variable	03
	Fixed	20
Standard Production cost		69

Normal output is 16,000 units per annum and this figure is used for the fixed production overhead calculation.
Cost relating to selling, distribution and administration are as follows:

Variable	20 percent of sales value
Fixed	Rs.180,000 per annum

There are no units in finished goods stock at October 1, 2000. The fixed overhead expenditure is spread evenly throughout the year. The selling price per unit is Rs.140.
For the two six monthly periods detailed below, the number of units to be produced and sold are budgeted as follows:

	Six months Ended March 31, 2001	Six months Ending September 30, 2001
Production	8,500	7,000
Sales	7,000	8,000

Required:
Prepare statements for management showing sales, costs and profits for each of the six monthly periods, using the following methods of costing:

a) Marginal costing and **(10)**
b) Absorption costing **(10)**

Q.2 The Khusboo Company produces perfume. To make this perfume, three different types of fluids are used. M,P andR are applied in proportions of 4/10, 3/10 and 3/10 respectively, at standard and their standard costs are Rs.60, Rs.35, and Rs.25 per litre, respectively. The Production Manager reported that in the past few months the standard yield has been at 80% on 100 litres of mix. The company as a policy does not carry any direct materials, as storage space is costly. Production has been set at 4,160,000 litres of perfume for the year. Last week the company produced 75,000 litres of perfume at a total direct material cost of Rs.4.495 million. Actual number of litres used and costs per litre for the three fluids is as follows:

Direct material	Litres	Cost per litre (Rs.)
M	45,000	55.00
P	35,000	42.00
R	20,000	27.50

Required:
Compute the price, yield and mix variances for each of the three direct materials. Reconcile these variances with the total direct material variance. **(25)**

Q.3(a) The Azad Company has provided you the following results of a regression analysis

Y = Rs.64,900+Rs.4.88L+Rs.2.20M

where Y = total monthly manufacturing overhead cost
L = labour hours
M = machine hour

Azad Company plans to use 12,000 labour hours and 2,000 machine hours per month.

Required:

1. Determine the total manufacturing overhead cost that Azad would incur next month.
2. Azad makes a product that has Rs.7.00 in material cost. It requires two hours of labour time and 30 minutes of machine time. Labourers earn Rs.15 per hour. What is the product's per unit variable manufacturing costs?
3. Suppose that Azad could reduce the labour time for the product described in requirement 2 by 30 minutes to 1.50 hours. Machine time will remain the same. By how much would the per unit variable manufacturing cost fall?

(12)

(b) Talib Industries is bidding on a contract to make eight batches of landing gear assemblies for an aircraft company. Talib's engineers expect direct labour and variable overhead for the first batch to be Rs.50,000. Variable overhead is related to direct labour. Talib usually achieves an 85% learning rate.

Required:
1. Determine the expected average cost for direct labour and variable overhead for the eight batches.
2. Determine the expected total cost for direct labour and variable overhead for the eight batches.

(08)

Q.4 The Finance Manager of the Master Company has prepared a CVP analysis for the firm based on sales of the firm's three products in the year 2000. He will present the analysis to a group of managers later in the week. Data per unit are given below:

	Products		
	Regal	Royal	Monarch
Selling price – Rs.	35	40	50
Variable costs - Rs.	15	30	20
Contribution margin – Rs.	20	10	30

On the basis of the sales mix in the year 2000, the Finance Manager believed that for every ten units sold, four would be Regals, four would be Royals and two Monarch. Total fixed costs were estimated to be Rs.0.90 million. Total sales were expected to be 100,000 units, based on a projection of trends in the recent years. The Finance Manager prepared the following planned income statement for the year 2001 based on the above assumptions:

	Royal	Regal	Monarch	(Rs '000) Total
Sales	1,400	1,600	1,000	4,000
Variable costs	600	1,200	400	2,200
Contribution margin	800	400	600	1,800
Fixed costs				900
Income before tax				900
Income tax (40%)				360
Net income				540

At the meeting, some of the managers were becoming restless as the Finance Manager explained his analysis. Finally the Production Manager informed the group that labour costs, which are 50% of variable costs, would increase by 20% under a new union contract.
The Finance Director was somewhat disappointed that Finance Manager's analysis does not provide for a Rs.400,000 dividend to shareholders that the Managing Director of the firm had said to be a target. The firm has a policy of not allowing dividends to be more than one third of after-tax profits. The Finance Director had thought that Finance Manager would incorporate the desired dividend into his analysis to show the other managers what had to be done to meet the Managing Director's goal.
As the managers began to mumble among themselves about the analysis, the sales manager announced that the assumed sales mix was no good. "I do not know how this will affect the analysis, but we expect that each product will be sold in equal amounts during this coming year. The demand for Monarch is increasing substantially".
The Production Manager commented that the firm was going to rent some additional equipment to increase production of Monarchs. The rentals would be Rs.100,000 per year. He wondered what effect this news would have on Finance Manager's figures.

Required:
Prepare a revised analysis for Master Company, incorporating the goals and changed assumptions deliberated during the meeting. Show the sales necessary to (a) break-even and (b) meet the profit required to pay the Rs.400,000 dividend without violating the firm's dividend policy. **(20)**

Q.5 Some companies and the local government authorities, trying to cut costs, are already using, or considering using, external suppliers of computing services. Arrangements vary from services supplied by computer services bureaux to Facilities Management (FM) arrangements where an external supplier provides an onsite service, often using equipment owned by the customer, and quite often employing staff formerly employed by the customer.
However, there are problems, one IT Manager was quoted in Computing magazine:
"If the other departments don't know what we are charging how can they decide how competitive an FM (Facilities Management) bid is?
If you don't draw up the specification properly you will end up with big problems".

You are required to explain

(a) The commercial problems of buying a service, compared with the problems of buying a manufactured products; **(05)**

(b) What cost information you would require on the internal provision of the service to compare with the external bid. In your answer deal specifically with the problems of buying computing services for future years. **(10)**

(THE END)