THE INSTITUTE OF CHARTERED ACCOUNTANTS OF PAKISTAN

Final Examinations   Summer 2006

June 06, 2006

MANAGEMENT ACCOUNTING

(MARKS 100)
(3 hours)

Q.1 Smart Appliances Limited (SAL) produces an article of modern kitchen equipment. In July and August, there is usually a shortage of orders. This year, the company expects to be working at only 67.50% of its normal capacity. The selling and cost structure of the article is:

	Rupees
Selling price	450
Costs	
Direct material	100
Direct labour	150
Production overhead: 0.5 machine hour	50
	300

The company's fixed production overhead is budgeted at Rs. 6,840,000 for the year and the normal capacity is 114,000 machine hours. All production overheads, both fixed and variable, are absorbed in the machine hour rate of Rs. 100 per hour.

Two enquiries have been received both of which could result in orders being received by the end of June. A large hotel group has enquired about 14,000 articles but has suggested that the finish need not be the same as that of the article sold to housewives. It has offered a price of Rs. 300 each with delivery being required at the end of August.

A chain of super stores has expressed interest in ordering 4,000 units of the article provided certain changes were made to make it different from the standard product. In case the order is accepted, the full quantity will have to be delivered on August 31. A price of Rs. 340 each is offered.

The production director has stated that it is important to assume that neither of the possible orders will result in repeat orders and that because of quality control difficulties it is not his policy to subcontract work outside the company. He has also given the following information:

1. To meet the hotel group's requirements the present direct material cost would reduce by an estimated 20% but the other costs would be the same as for the article currently in production.
2. For the chain of super stores an increase in cost is unavoidable and the cost structure would be:

	Rupees
Direct material	120
Direct labour	150
Production overhead: 0.5 machine hour	75
	345

The ratio of increase in fixed and variable overhead is projected to remain the same. There would also be a design charge of Rs. 20,000 and of Rs. 27,500 for a stamping tool associated with the brand name of the chain of super stores, which would have no use after the production run.

Required:

Write a report to the Managing Director analyzing the two proposals alongwith your suggestions. **(12)**

Q.2 Valentia Glass Company is involved in manufacturing and sale of equipment which is used for scientific research. The standard cost of its product is as under:

	Rupees
Direct material ABC	5.00
Direct material XYZ (1.5 kgs @ Rs. 5)	7.50
Direct labour (3 hours @ Rs. 23.50)	70.50
Variable factory overhead (Rs. 1.50/direct labour hour)	4.50
Fixed factory overhead (Rs. 3/direct labour hour)	9.00
	96.50

The company uses absorption costing, however, the Chief Executive who is a technical person and knows a lot about the trade is confused in using this basis. He feels that business can be better managed if only direct materials, direct labour and variable factory overheads were to be assigned to inventory and all fixed factory overheads were charged to expenses.

There is stiff competition in the market, but the company is able to maintain the sale price of Rs. 150 per unit. During the last month 350 units were sold whereas 450 units were produced which equals the normal capacity. 140 units were left unsold at month end. The forecast for next month's sale is much higher. In respect of the material ABC the company recorded Rs. 184 as favourable materials variance. Actual factory overhead was Rs. 6,297. Administration expenses remain at 5% of the sales value. Price of the other raw material (XYZ) has been going up and the average price of XYZ used last month was Rs. 5.15 per kg but only 98% of the standard quantity was used.

Required:

Prepare income statements for submission to the Chief Executive using the absorption costing method and direct costing method with a reconciliation of any difference in profit. **(12)**

Q.3 Sarhad Industries Limited is a manufacturing company which produces a single product. It operates a standard costing system and the management accountant had calculated the following variances for the month of December 2005:

	Rupees			Rupees	
Materials			**Labour**		
Usage	4,200	(F)	Efficiency	10,780	(A)
Price	9,520	(A)	Rate	4,200	(F)
Variable overhead			**Fixed overhead**		
Total	540	(A)	Volume	8,220	(F)
			Expenditure	2,620	(A)

The following additional information is available:

1. Price paid for raw material was Re. 0.40 per kg more than the standard price.
2. Closing stock of raw material was 200 kgs more than the opening stock.
3. Actual wage rate paid during the month was Rs. 3.40 per hour.
4. All overheads are absorbed into production costs on the basis of standard hours produced using the following rates:

Fixed overheads	Rs. 5.00 per standard hour
Variable overheads	Rs. 0.50 per standard hour

5. There was no opening or closing work-in-progress.
6. The following actual costs for December 2005 have been incurred:

	Rupees
Materials used	199,920
Wages incurred	142,800
Variable overheads	20,000
Fixed overheads	189,000

7. Actual production of finished goods during December 2005 was 4,865 units.

Required:

Prepare a standard cost sheet. **(14)**

Q.4 Sammar Textile is involved in the production and sales of ready-made garments. The marketing department has prepared the following sales budget (in units) for the half year ending December 31:

July	10,000	October	16,000
August	10,000	November	20,000
September	11,000	December	25,000

It is the firm’s policy to have two months supply of finished product on hand. The Production Manager is not happy with this policy which makes the product expensive due to variation in production levels. His prudent estimate is that the variable manufacturing cost increases by Rs. 20 per unit for production in excess of 18,000 units per month.

The Finance Manager agrees with the Production Manager on this point. His workings show that it costs the firm Rs. 5 per unit per month in ending inventory on account of insurance, financing and handling costs, which are all variable costs.

Both the Managers however agree that the firm should have an inventory level of 45,000 units at the end of October. Production Manager feels that the required production should be spread evenly over the period of four months. The inventory level on July 1 is 20,000 units.

Required:

Prepare detailed working to conclude whether the company should change the production policy as suggested by the Finance and Production Managers. **(12)**

Q.5 Windmills Ltd. operates a large hotel. The facilities also include a restaurant and a Banquet Hall. The season at this location lasts for 120 days from February to May each year. The hotel has a capacity of 100 double rooms for which a rent of Rs. 11,000 per room per day exclusive of all taxes is charged irrespective of the fact whether the room is occupied as single or double. The average number of rooms let per day is 90 throughout the season. The company has obtained a term loan of Rs.50,000,000 from a bank on which markup @ 10% p.a. is charged. Banquet Hall is run by the name of Marry Inn Banquet and is mostly used for weddings and other functions. The sales of the restaurant and banquet hall vary in direct proportion to the number of rooms occupied. Variable costs of Banquet Hall and Restaurant vary in direct proportion to sales while those of hotel vary in direct proportion to the number of rooms occupied.

The following Income Statement has been prepared by the Financial Controller of Windmills Ltd. for the year ended 31 May 2006:

	Banquet Hall	**Restaurant**	**Accommodation**	**Total**
	Rs.000	**Rs.000**	**Rs.000**	**Rs.000**
Sales	23,000	34,600	118,800	176,400
Cost of goods sold	12,650	20,760	-	33,410
Consumable stores	1,150	5,190	9,225	15,565
Variable costs	13,800	25,950	9,225	48,975
Salaries	1,380	10,380	22,675	34,435
Financial Costs	-	-	5,000	5,000
Insurance	1,150	1,384	13,837	16,371
Depreciation	920	2,076	23,063	26,059
Others	230	346	1,845	2,421
Fixed costs	3,680	14,186	66,420	84,286
Total Costs	17,480	40,136	75,645	133,261
Profit/(loss)	5,520	(5,536)	43,155	43,139

Salaries are for the season except for a security guard who is paid Rs. 54,000 p.a., wholly chargeable to the hotel.

The directors are worried about the low profitability and the loss on Restaurant activities. They have set a target that the total annual profit next year should be Rs. 70.0 million.

The company is considering to keep all the facilities open for an additional 120 days. There will be no change in the room rate of Rs. 11,000 per day but average room lettings will fall to 10 per day during the additional 120 days period.

Another company Florence Ltd., has made an offer to Windmills Ltd., to buy upto 50 rooms at Rs. 7,000 per room per day subject to the condition that the contract will be for the 240 days period. During the additional period all the rooms let to Florence Ltd., will be in addition to the 10 average room lettings per day achieved by Windmills Ltd., itself. However during the season of 120 days any lettings to Florence Ltd., in excess of 10 will be in substitution for those achieved by the company. During the additional 120 days period, banquet hall will be used as a gift shop and for organizing exhibitions, incurring conversion costs of Rs. 500,000 in February and Rs. 500,000 in May. The ratio of sales in shop and restaurant and variable costs of the hotel will continue to vary in direct proportion to the number of rooms let. The variable costs in shop and restaurant will continue to vary in direct proportion to sales.

Required:

Assuming that the company accepts the offer by Florence Limited:

(a) Prepare a budgeted contribution statement for the year ending 31 May 2007.
(b) Calculate the additional number of rooms per day that should be sold by the company during the additional season of 120 days to achieve the target profit of Rs. 70,000,000.
(c) Give brief suggestions in respect of the restaurant which is incurring losses. **(20)**

Q.6 Quick Limited (QL) traditionally follows a highly aggressive working capital policy with no long-term borrowing. Following are the key details from its recently compiled accounts:

	Rs. in millions
Sales (all on credit)	10.00
Earnings before interest and tax	2.00
Interest payments for the year	0.50
Shareholders' funds (comprising Rs. 1.0 M issued share capital, face value Rs. 10 per share and Rs. 1.0 M revenue reserve)	2.00
Debtors	0.40
Stocks	0.70
Trade creditors	1.50
Bank overdraft	3.00

A major supplier whose supplies are 50% of QL's cost of sales, is highly concerned about QL's policy of taking extended credit. The supplier offers QL the opportunity to pay for supplies within 15 days in return for a discount of 5% on the invoiced value.

QL holds no cash balances but can obtain sufficient overdraft limit from its bank at 12%. Tax on corporate profit is 33%.

Required:

(i) Determine the costs and benefits to QL of this arrangement with its supplier and recommend whether QL should accept the offer taking in view the effects on:

- The working capital cycle;
- Interest cover;
- Profits after tax;
- Earnings per share;
- Return on equity;
- Capital gearing.

(ii) Discuss the dangers of over-reliance on trade credit as a source of finance. **(12)**

Q.7 Discuss and explain the objectives which just-in-time (JIT) system seeks to achieve. **(06)**

Q.8 Ritz Limited manufactures washing machines. It is investigating whether or not to accept a one-year contract to make a new model for Sahara Limited. The price being offered is Rs. 4,200 per machine for all the machines it can produce during the year.

The following estimates have been made:

			Rupees	
–	Materials	-	3,000	per unit
–	Direct Labour	-	600	per hour
–	Variable overheads	-	200	per labour hour

To manufacture this newly designed machine, an additional machine costing Rs. 640,000 would have to be bought at the start of the contract. The factory manager knows from experience of similar machines that there will be a learning effect for labour. He estimates that the learning rate will be 90%. Further skilled labour is not available.

The cost of material includes wastage of 5% of material actually used in the machine. When the labour becomes skilled, wastage is expected to reduce to 4% and 3% after production of 1,000 and 2,000 units respectively. Thereafter it shall remain fixed at 3%.

The factory manager estimates that the first batch of 500 units will take 800 hours to produce and that the available labour can produce 4,000 units in the year. Fixed cost of Rs. 2,500,000 will be payable each year, whether any production is carried out or not.

Required:

(a) Prepare appropriate workings to show whether the contract should be accepted under each of the following assumptions:

(i) The company does not have any other contract in hand.
(ii) It has another contract on which it can earn Rs. 200,000 during the year.

(b) What are the limitations of learning curve theory? **(12)**

(THE END)