



March 7, 2008

COST ACCOUNTING

(MARKS 100)

Module D

(3 hours)

Q.1 Mirza Limited is engaged in the manufacturing of spare parts for automobile industry. The company records the purchase and issue of materials in a store ledger which is not integrated with the financial ledger. It is the policy of the company to value inventories on weighted average basis. The valuation is carried out by the Finance Department using stores memorandum record. A physical stock count is carried out after every six months. Any shortage/excess is then adjusted in the financial as well as stores ledger.

On December 31, 2007, physical stock count was conducted by the Internal Auditor of the company. He submitted the following statement to the Finance Department:

Item Code	Balance (in units)			Cost per unit (Rs.)	
	Store Ledger	Financial Records	Physical	Average	Current
010-09	20,500	20,500	20,000	2.00	2.25
013-25	10,000	10,000	10,000	4.00	1.50
017-10	5,500	5,500	5,000	1.00	1.10
022-05	4,000	4,500	5,500	2.00	2.00
028-35	1,200	1,200	1,000	2.75	2.50
035-15	640	600	600	3.00	3.50

On scrutinizing the details, Finance Department was able to ascertain the following reasons:

Item Code	Reasons
010-09	500 units were defective and therefore the Internal Auditor excluded them while taking the physical count.
013-25	This item is not in use and is considered obsolete. The net realizable value is Rs. 0.60 per unit.
017-10	Shortage is due to theft.
022-05	A receipt of 1,000 units was not recorded. The remaining difference is due to errors in recording the quantity issued.
028-35	200 units returned to a supplier were not recorded. The invoiced cost was Rs. 3 per unit.
035-15	Discrepancy is due to incorrect recording of a Goods Receipt Note.

Required:

- (a) Prepare necessary Journal entries to record the adjustments in the financial ledger.
- (b) State how would you make the necessary adjustments in the stores ledger? (14)

Q.2 (a) Explain the treatment of under-absorbed and over-absorbed factory overheads. Give three reasons for under-absorbed / over absorbed factory overheads. (06)

(2)

- (b) On December 1, 2007 Zia Textile Mills Limited purchased a new cutting machine for Rs. 1,300,000 to augment the capacity of five existing machines in the Cutting Department. The new machine has an estimated life of 10 years after which its scrap value is estimated at Rs. 100,000. It is the policy of the company to charge depreciation on straight line basis.

The new machine will be available to Cutting Department with effect from February 1, 2008. It is budgeted that the machine will work for 2,600 hours in 2008. The budgeted hours include:

- 80 hours for setting up the machine; and
- 120 hours for maintenance.

The related expenses, for the year 2008 have been estimated as under:

- (i) Electricity used by the machine during the production will be 10 units per hour @ Rs. 8.50 per unit.
- (ii) Cost of maintenance will be Rs. 25,000 per month.
- (iii) The machine requires replacement of a part at the end of every month which will cost Rs. 10,000 on each replacement.
- (iv) A machine operator will be employed at Rs. 9,000 per month.
- (v) It is estimated that on installation of the machine, other departmental overheads will increase by Rs. 5,000 per month.

Cutting Department uses a single rate for the recovery of running costs of the machines. It has been budgeted that other five machines will work for 12,500 hours during the year 2008, including 900 hours for maintenance. Presently, the Cutting Department is charging Rs. 390 per productive hour for recovery of running cost of the existing machines.

Required:

Compute the revised machine hour rate which the Cutting Department should use during the year 2008.

(08)

- Q.3 Ayub Sports Limited produces boxing gloves which are in great demand in the local as well as international market. Because of better quality and lesser competition in the market, the company's profit has approximately doubled in 2007. A summary of company's expenses and profit for the year 2006 and 2007 are as under:

	2007	2006
	Rupees	Rupees
Materials consumed	140,000	100,000
Wages	120,000	80,000
Overheads – Fixed	32,000	30,000
Overheads – Variable	34,000	24,000
Net profit	20,500	10,000

In 2007, sales prices were increased by 10% as compared to 2006. The material prices and rate of wages increased by 10% and 20% respectively in 2007.

In a meeting held to evaluate the performance of various departments, significant differences arose among the departmental heads. Therefore the Managing Director of the company asked the CFO to analyse the financial performance objectively.

Required:

Being the CFO of the company carry out an analysis to determine the increase/decrease in profit in 2007, due to sales price, sales volume, material price, material consumption, labour efficiency, labour rate, variable overheads and fixed overheads.

(17)

- Q.4 Fazal Industries Limited is currently negotiating a contract to supply its products to K-Mart, a large chain of departmental stores. K-Mart finally offered to sign a one year contract at a lump sum price of Rs. 19,000,000.

The Cost Accountant of Fazal Industries Limited believes that the offered price is too low. However, the management has asked you to re-assess the situation. The cost accountant has provided you the following information:

Statement of Estimated Costs (Project: K-Mart)

	Notes	Rupees
Material:		
X (at historical cost)	(i)	1,500,000
Y (at historical cost)	(ii)	1,350,000
Z	(iii)	2,250,000
Labour:		
Skilled	(iv)	4,050,000
Unskilled	(v)	2,250,000
Supervisory	(vi)	810,000
Overheads	(vii)	8,500,000
Total cost		20,710,000

You have analysed the situation and gathered the following information:

- (i) Material X is available in stock. It has not been used for a long time because a substitute is currently available at 20% less than the cost of X.
- (ii) Material Y was ordered for another contract but is no longer required. Its net realizable value is Rs. 1,470,000.
- (iii) Material Z is not in stock.
- (iv) Skilled labour can work on other contracts which are presently operated by semi-skilled labour who have been hired on temporary basis at a cost of Rs. 325,000 per month. The company will need to give them a notice of 30 days before terminating their services.
- (v) Unskilled labour will have to be hired for this contract.
- (vi) Two new supervisors will be hired for this contract at Rs. 15,000 per month. The present supervisors will remain employed whether the contract is accepted or not.
- (vii) These include fixed overheads absorbed at the rate of 100% of skilled labour. Fixed production overheads of Rs. 875,000 which would only be incurred if the contract is accepted, have been included for determining the above fixed overhead absorption rate.

Required:

Prepare a revised statement of estimated costs using the opportunity cost approach, for the management of Fazal Industries and state whether the contract should be accepted or not. (14)

- Q.5 Ishaq Limited manufactures plastic bottles for pharmaceutical companies. It has recently introduced a 100% weekly group bonus plan with a guaranteed wage of Rs. 150 per hour. Standard production per hour is 50 bottles. Each worker is supposed to work 8 hours a day from Monday to Friday and 5 hours on Saturday. Presently, there are 20 workers who are entitled for this plan. Production for the first week under the 100% bonus plan was:

Days	Mon	Tue	Wed	Thu	Fri	Sat
No. of bottles	8,700	7,350	9,750	7,500	8,950	4,550

Most of the workers have raised objection on the company's bonus plan. They are of the view that bonus calculation should be based on daily production instead of weekly production. The management of the company has asked you to determine the impact of such a change.

Required:

Prepare statements showing labour cost per unit under each of the two options. Give reasons for the differences, if any.

(10)

- Q.6 Yahya Limited produces a single product that passes through three departments, A, B and C. The company uses FIFO method for process costing. A review of department A's cost records for the month of January 2008 shows the following details:

	Units	Material Rs.	Labour Rs.
Work in process inventory as at January 1, 2008 (75% complete as to conversion costs)	16,000	64,000	28,000
Additional units started in January 2008	110,000	-	-
Material costs incurred	-	430,500	-
Labour costs incurred	-	-	230,000
Work in process inventory as at January 31, 2008 (50% complete as to conversion costs)	18,000	-	-
Units completed and transferred in January 2008	100,000	-	-

Overhead is applied at the rate of 120% of direct labour. Normal spoilage is 5% of output. The spoiled units are sold in the market at Rs. 6 per unit.

Required:

Compute the following for the month of January:

- Equivalent production units.
- Costs per unit for material, labour and factory overhead.
- Cost of abnormal loss (or gain), closing work in process and the units transferred to the next process.

(16)

- Q.7 Zulfiqar Limited makes and sells a single product and has the total production capacity of 30,000 units per month. The company budgeted the following information for the month of January 2008:

Normal capacity (units)	27,000
Variable costs per unit:	
Production (Rs.)	110
Selling and administration (Rs.)	25
Fixed overheads:	
Production (Rs.)	756,000
Selling and administration (Rs.)	504,000

The actual operating data for January 2008 is as follows:

Production	24,000 units
Sales @ Rs. 250 per unit	22,000 units
Opening stock of finished goods	2,000 units

During the month of January 2008, the variable factory overheads exceeded the budget by Rs. 120,000.

Required:

- Prepare profit statement for the month of January using:
 - marginal costing; and
 - absorption costing.
- Reconcile the difference in profits under the two methods.

(15)

(THE END)