THE INSTITUTE OF CHARTERED ACCOUNTANTS OF PAKISTAN

Final Examinations Winter 2004

December 07, 2004

MANAGEMENT ACCOUNTING

(MARKS 100)
(3 hours)

Q.1 (a) Briefly describe accounting treatment of normal and abnormal losses in process costing with examples. **(04)**

(b) What are the benefits in adoption of JIT stock management and give examples of cases where JIT is not appropriate? **(06)**

Q.2 A company produces four products A, B, C and D. The present machine capacity is 240 hours per month. An existing machine with the capacity of 70 hours is unsuitable for the production of A and D but is suitable for the production of B and C. On the other machines any of the four products may be produced. There is an adequate supply of labour for all the four products.

Marketing policy requires that each month there should be produced:

(i) All four types of products; and
(ii) Not less than 5,000 kg of any one product.

Details relating to production, market price and direct and fixed costs are given below:

	A	**B**	**C**	**D**
Machine hours at present devoted to each line	105	50	60	25
Production in kgs. per machine hour	700	200	150	300
	Rs.	Rs.	Rs.	Rs.
Market price per kg	3.86	3.86	4.56	5.68
Material cost per machine hour	189	74	63	108
Labour cost per machine hour	224	152	93	132
Other variable costs per kg	0.80	0.72	1.00	1.20
Transport per kg	1.30	1.30	1.00	2.40

Fixed overhead incurred each month including transportation, general administration etc. are Rs. 112,000.

Required:

Advise distribution of machine hours to each product to produce the maximum profit and work out the amount of maximum profit. **(17)**

Q.3 Delta Limited manufactures a product Alpha from two ingredients X and Y. A standard absorption costing system is in use. Shown below are certain balances from the company's cost records for the current year:

	Dr. Rs.	Cr. Rs.
Standard cost of goods sold	8,190,000	
Variances:		
Direct material usage	15,000	
Labour efficiency		105,000
Labour rate	93,000	
Unapplied overhead	60,000	

Material price variances are taken on purchases. The balance on the direct material price variance account is zero, but analysis reveals a debit balance of Rs.90,000 in respect of X and a credit balance of Rs.90,000 in respect of Y.

The standard mix of ingredients per standard unit of output is 10 kgs. of X and 3 kgs. of Y. Actual consumption of X during the course of the year was 2000 kgs. less than standard while actual consumption of Y exceeded standard by 2000 kgs. There was no opening stock. Physical closing stocks were as follows:

	Quantity	Original purchase cost
Material X	22,000 kg.	Rs. 514,800
Material Y	4,000 kg.	Rs.108,000
Finished stock	2,000 standard units	

Labour cost exceeded standard by Rs.3 per hour. Actual overhead expenditure was Rs. 5,100,000. Overhead is applied at 150% of direct labour hour costs. 6,000 standard units were sold during the period. No overhead efficiency variance has been taken out.

Required:

Prepare a table showing per unit standard cost of Alpha. **(20)**

Q.4 Based on the following information, work out length of cash operating cycle for both the years:

	Present position for the year 2004 Rs.	Budgeted position for the year 2005 Rs.
Sales	500,000	576,000
Cost of goods sold	420,000	496,000
Purchases	280,000	340,000
Accounts receivables	62,500	72,000
Creditors	42,000	60,000
Raw materials	70,000	120,000
Work-in-process	35,000	60,000
Finished goods	80,000	86,000

Assume all sales and purchases are on credit terms. **(10)**

Q.5 Shelton Corporation manufactures product 'P'. The Production Depart... developed another process of manufacturing which will change the cost st... altogether as give below:

	Existing process	New process
	Rs.	**Rs.**
At 10,000 unit production:		
Raw materials	270,000	170,000
Direct labour	102,000	78,500
Factory Rent	80,000	80,000
Utilities - Fixed	100,000	100,000
" - Variable	40,000	100,000
Other FOH - Fixed	100,000	220,000
" - Variable	8,000	31,500

Product 'P' is getting popular day by day and production level is expected to grow substantially in near future.

Required:

Determine the production level at which the management should decide to switch over to the new process. **(12)**

Q.6 The Z Division of City Limited produces a component which it sells externally and can also transfer to other divisions within the company.

Z Division has set a performance target for the coming financial year to achieve a residual income of Rs.5 million.

The following budgeted information relating to Z Division has been prepared for the coming financial year:

(i)	Maximum production/sales capacity:	800,000 units.
(ii)	Sales to external customers:	500,000 units at Rs. 37 per unit.
(iii)	Variable cost per component:	Rs.25
(iv)	Fixed cost directly attributable to the division:	Rs.1.4 million
(v)	Capital employed:	Rs.20 million with a cost of capital of 14%.

The A Division of City Limited has asked Z Division to quote a transfer price for units of the components.

Required:

Calculate the minimum transfer price per component which Z Division can quote to A Division while ensuring that its budgeted residual income target will be achieved. **(05)**

Q.7 Rehan & Company is engaged in a Contract of Rs. 20 million. The contract is 18 months. The relevant data is as under:

Estimated cost of contract:	Rupees in million
Material cost	8.00
Sub-contracting cost	4.00
Quality auditors fee @ Rs.50,000 pm	0.90
Machinery rentals @ Rs.200,000 pm	3.60
Other expenses @ Rs.25,000 p.m.	0.45
Total	**16.95**

Work certified at the end of 15th month is 80% and all costs incurred were as per above estimate. At this stage probabilities for delay in completion of project are as under:

Delay expected	**Probability**
2 months	0.40
3 months	0.50
4 months	0.10

As per agreement, there is a penalty of Rs.50,000 per month in case of delay in project.

Required:

You are required to calculate 'attributable profit' for the 15th month if profit already booked up to 14th month is Rs.1.8 million **(10)**

Q.8 (a) What is critical path, critical activity and critical event? **(06)**

(b) A small project has the following time schedule:

Activity	Time in months
1 – 2	2
1 – 3	2
1 – 4	1
2 – 5	4
3 – 6	8
3 – 7	5
4 – 6	3
5 – 8	1
6 – 9	5
7 – 8	4
8 – 9	3

Required:

(a) Compute the total float for each activity.
(b) Find out the critical path and its duration. **(10)**

(THE END)