

**PAPER 5: ADVANCED COST ACCOUNTING AND COST SYSTEMS
NOVEMBER 1997**

Question No.1 is compulsory. Answer any four from the rest.

Question 1

- (a) What is meant by Cost-plus pricing? **(4 Marks)**
 (b) What is Responsibility Accounting? **(4 Marks)**
 (c) What is the distinction between Cost Control and Cost Reduction? **(4 Marks)**
 (d) A Company products three products from an imported material. The Cost Structure per unit of the products are as under:

	Product		
	A	B	C
	Rs.	Rs.	Rs.
Sales value	200	300	250
Direct Material	50	80	60
Direct wages Rs.6 per hour	60	120	108
Variable Overheads	30	60	54

Out of Direct Material 80% is of the Imported Material @ Rs.10 per kg.

Prepare a statement showing comparative Profitability of the three products under the following scenarios:

- (i) Imported Material is in restricted supply.
 (ii) Production Capacity is limiting factor.
 (iii) When maximum sales potential A and B are 1,000 units each and that of product "C" is 500 units for specific requirement, availability of imported material is restricted to 10,000 kgs per month, how the profit could be maximized? **(12 Marks)**

Question 2

- (a) What is meant by Incremental Revenue? **(4 Marks)**
 (b) A Company has two Divisions, Division "A" and Division "B". Division "A" has a Budget of selling 2,00,000 nos. of a particular component 'x' to fetch a return of 20 % on the average assets employed. The following particulars of Division "A" are also known:

Fixed overhead	Rs.5 lakhs
Variable cost	Re.1 per unit
Average Assets	
Sundry Debtors	Rs.2 lakhs
Inventories	Rs.5 lakhs
Plant & Equipments	Rs.5 lakhs

However, there is constraint in Marketing and only 1,50,000 units of the component 'x' can be directly sold to the Market at the proposed price.

It has been gathered that the balance 50,000 units of component 'x' can be taken up by Division "B". Division "A" wants a price of Rs.4 per unit of 'x' but Division "B" is prepared to pay Rs.2 per unit of 'x'.

Division "A" has another option in hand, which is to produce only 1,50,000 units of component 'x'. This will reduce the holding of assets by Rs.2 lakhs and fixed overhead by Rs.25,000.

You are required to advise the most profitable course of action for Division "A". **(15 Marks)**

Question 3

X Ltd., has two factories, one at Lucknow and another at Pune producing 7,200 tonnes and 10,800 tonnes of a product against the maximum production capacity of 9,000 and 11,880 tonnes respectively at Lucknow and Pune.

10% of the raw material introduced is lost in the production process. The maximum quantity of raw material, available locally are 6,000 and 13,000 tonnes at Rs.720 and rs 729 per tonne at Lucknow and Pune

respectively. For the additional needs a supplier of Bhopal is ready to supply raw material at our factory site at Rs.792 per tonne.

Other variable costs of the production process are Rs.22.32 lacs and Rs.32.94 lacs and fixed cost are Rs.18 lacs and Rs.24.84 lacs respectively for Lucknow and Pune factory.

The output is sold at a selling price of Rs.1,450 and Rs.1,460 per tonne by Lucknow and Pune factory respectively.

You are required to compute the cost per tonne and net profit earned in respect of each factory.

Can you suggest any other alternative production plan for both the factories without any change in present total output of 18,000 tones whereby the company may earn optimum profit. **(19 Marks)**

Question 4

(a) What are the basic differences between Standard Costing and Budgetary Control? **(7 Marks)**

(b) The Standard Cost Card of producing one unit of item "Q" is as under:

Direct material --	A – 12 Kg. @ Rs.10/-	=	Rs.120
	B – 5 Kg. @ Rs.6/-	=	Rs.30
Direct wages --	5 Hrs. @ Rs.3/-	=	Rs.15
Fixed Production Overheads		=	<u>Rs.35</u>
Total Standard Cost		=	Rs.200
Standard Gross Profit		=	<u>Rs.50</u>
Standard Sale Price		=	<u>Rs.250</u>

Fixed Production Overhead is absorbed on expected annual output of 13,200 units.

Actual result for the month of September, 1997 are as under:

Actual production	1,000 units		Rs.
Sales	1,000 units @ Rs.250	=	2,50,000
Direct Material --	A – 11,000 Kg.	=	1,21,000
	B- 5,200 kg.	=	28,600
Direct Wages	-- 5,500 Hrs.	=	17,500
Fixed Overheads		=	<u>39,000</u>
		=	<u>2,06,100</u>
	Gross Profit	=	<u>43,900</u>

You are required to calculate all variances. Material price variance is taken out at the time of receipt of Material, Material purchased were:

12,000 kg. of "A" @ Rs.11 & 5,000 Kg. of "B" @ Rs.5.50

(12 Marks)

Question 5

(a) "Cost may be classified in a variety of ways according to their nature and information needs of the management". Discuss. **(4 Marks)**

(b) Elegant Hotel has a capacity of 100 single rooms and 20 double rooms. It has a sports centre with a swimming pool, which is also used by persons other than residents of the hotel. The hotel has a shopping arcade at the basement and a specialty restaurant at the roof top. The following information is available.

i. Average occupancy : 75% for 365 days of the year.

ii. Current costs are :

	Variable cost Rs.per day	Fixed cost Rs. Per day
Single Room	400	200
Double Room	500	250

iii. Average sales per day of restaurant Rs.1,00,000; contribution is at 30%. Fixed cost Rs.10,00,000.

iv. The sports centre/s swimming pool is likely to be used by 50 non-residents daily; average contribution per day per non-resident is estimated at Rs.50; fixed cost is Rs.5,00,000 per annum.

- v. Average contribution per month from the shopping arcade is Rs.50,000; fixed cost is Rs.6,00,000 per annum.

You are required to find out:

- (a) Rent chargeable for single and double room per day, so that there is a margin of safety of 20% on hire of rooms and that the rent for a double room should be kept at 10% of a single room.
- (b) Evaluate the profitability of restaurant, sports centre and shopping arcade separately. **(15 Marks)**

Question 6

- (a) What is meant by Opportunity Cost? **(4 Marks)**
- (b) You are required to calculate a suggested fare per passenger / km from the following information for a Mini Bus:
- Length of route: 30 Km
 - Purchase price Rs.4,00,000
 - Part of above cost met by loan, annual interest of which is Rs.10,000 p.a.
 - Other annual charges; Insurance Rs.15,000. Garage rent Rs.9,000, Road Tax Rs.3,000, Repairs & Maintenance Rs.15,000, Administrative Charges Rs.5,000.
 - Running expenses: Driver & Conductor Rs.5,000/pm., Repairs / Replacement of tyre tube Rs.3,600 p.a. Diesel and oil cost per km Rs.5.
 - Effective life of vehicle is estimated at 5 years at the end of which it will have a scrap value of Rs.10,000
 - Mini bus has 20 seats and is planned to make Six No. two-way trips for 25 days / p.m.
 - Provide profit @ 20% of total revenue.