K. J. SOMAIYA INSTITUTE OF MANAGEMENT STUDIES AND RESEARCH

Vidyavihar, Mumbai- 400077

Program: PGDM-Financial Services *(Batch2017-19) Trim-II*

Subject: Cost and Management Accounting

(End Term Examination)

Maximum Marks: 50 **Duration : 3 hours** **Date: 06/01/2018**

1. **Question 1 is compulsory & carries 20 Marks**
2. **Attempt any FOUR from the rest - carry equal marks.**

Question 1 : Roshni Electronics Manufacturing company furnishes the following information for 1000 LED TV sets during the year 2016.

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
Material	35, 00, 000	Factory Indirect Wages	2, 00, 000
Direct Wages	7, 00, 000	Rectification Costs	1, 00, 000
Power & consumable stores	3, 20, 000	Clerical salaries & management expenses	12, 00, 000
Factory Lighting	3, 00, 000	Selling expenses	25, 00, 000
Sale proceeds of scrap	1, 00, 000	Plant Repairs, Maintenance & Depreciation	4, 00, 000

The net selling price was Rs. 14,000 per unit sold and all units were sold. It is estimated that production could be increased by 25% in next year due to spare capacity. Following it, Rates for materials and direct wages will increase by 2%. Also, selling price can be reduced to Rs. 13,500 per unit in 2017.

You are required to prepare (a) Cost sheet for the year 2016 (total cost as well as cost per unit for each item). (b) Estimated cost and profitability for 2017 for 1,250 units to be produced and sold. Assume that factory overheads will be recovered/ applied as a percentage of direct material and office and selling expenses as a percentage of works cost.

Question 2 : Optical India Ltd. (OIL) manufactures specialized equipment for polishing optical lenses. There are two models- L25 principally used for fine eyewear and the other BL -10 for lenses used in bifocal and similar equipment.

The manufacturing cost of each unit is calculated using activity -based costing, for these manufacturing cost pools:

Cost Pools	**Allocation Base**	**Costing Rate**
Materials Handling	Number of parts	` 117.5 per part
Manufacturing Supervision	Hours of machine time	` 625 per hour
Assembly	Number of parts	` 162.5 per part
Machine setup	Each set up	` 4425 per setup
Inspection and testing	Logged hours	` 1750 per hour
Packaging	Logged hours	` 575 per hour

The company currently sells the BL-10 model for ` 62,500 and L-2 model for ` 36,250. Manufacturing costs and activity usage for the two product follows:

	BL-10	L-25
Direct Materials	` 6750	` 3300
Number of parts	98	65
Machine hours	12	7
Inspection time	1.5	1
Packing time	1	0.75
Setups	2	1

a) Calculate the product cost and product margin for each product.

b) A new competitor has entered the market for lens -polishing equipment with a superior product at significantly lower prices, `37,500 for the BL-10 model and `27,500 for the L-25 model. To try to compete, OIL has made some radical improvements in the design and manufacturing of its two products. The material costs and activity usage rates have been decreased significantly.

	BL-10	L-25
Direct Materials	` 5250	` 2850
Number of parts	53	41
Machine hours	9	3
Inspection time	0.5	0.25
Packing time	1	0.5
Setups	1	1

Calculate the total product costs with the new activity usage data. Can OIL make a profit with the new costs, assuming that it must meet the price set by the new competitor?

c) What cost management method might be useful to OIL at this time and why?

Question 3

Pensoft Ltd**.** adopts a six-monthly time span sub divided into monthly intervals for the cash budget. The following information is available in respect of its operations.

(` in lakhs)

	Months					
	1	2	3	4	5	6
Sales	40	50	60	60	60	40
Purchases	1	1.5	2	2	2	1
Direct labour	6	7	8	8	8	6
Manufacturing Overhead	13	13.5	14	14	14	13
Administration expenses	2	2	2	2	2	2
Distribution expenses	2	3	4	4	4	2
Raw materials	14	15	16	16	4	15

Assume the following financial flows during the period.

a) Inflows: 1. Interest received in month 1 and month 6 to be ` 1 lakh
2. Dividend received in month 3 and 6 to be ` 2 lakhs each

3. Sale of shares in month 6 , ` 1.6 lakhs

b) Outflows: 1. Interest paid in month 1, `0.4 lakh

2. Dividends paid month 1 and 4, `2 lakhs each

3. Instalments payment on machine , month 6, `20lakhs

4. Repayment of loan month 6, ` 80lakhs

c) Assume that 10% of each months' sale are for cash, balance 90% on credit. Assume sales for the months before the budget period to be `50lakhs each month. The terms and credit experience of the firm are:

1. No cash discount
2. 1% of credit sales are returned by the customers
3. 1% of total accounts receivable is bad debts
4. 50% of all accounts that are going to pay do so within 30 days
5. Balance 50% of all accounts that are going to pay do so within 60 days

From the above details prepare a cash budget for a six month horizon.

Question 4 The board of directors of K.F. Limited, manufacturers of three products A, B, & C have asked for advice on the production mix of the company.

(a) You are required to prepare a statement to advise the directors of the most profitable mixture of the products to be made and sold. The statement should show :

i. the profit expected on the current budgeted production, and
ii. the profit which could be expected if the most profitable mixture which are likely to arise if the mixture in (a) above were to be produced.

The following information is given :

		Product A	Product B	Product C
		Rs.	Rs.	Rs.
Direct materials	..	10	30	20
Variable overhead	..	3	2	5
Direct Labour :				
Department	Rate per hour Rs.	Hours Rs.	Hours Rs.	Hours Rs.
1	0.5	28	16	30
2	1.0	5	6	10
3	0.5	16	8	30
Data from current budget production in thousands of unit per year		10	5	6
Selling price per unit		Rs. 50	Rs. 68	Rs. 90
Fixed overhead per year : Rs 2,00,000				
Forecast by sales director of maximum possible sales for next year :				
in thousand of unit		12	7	9

However, the type of labour required by department 2 is in short supply and it is not possible to increase the manpower of this department beyond its present level.

Question 5

Sara Ltd. markets plastic containers. Last year, they sold 250000 pieces with the following cost structure. The Managing Director is desirous of expanding the capacity as their products are very popular . If the company invests ` 500000 , the capacity would increase by 50%.

a) Calculate breakeven point before expansion and after expansion by units and rupees.
b) At what level of sales would the company earn ` 12,00,000 profits for the year?
c) If the company wants to earn at least 15% return on the capital invested during the year with the profits of last year, what should be the sales?

The following is the sales particulars for the last year

Sales @ `20 per piece	5000000
Variable costs	3000000
Fixed costs	1000000
Profits	1000000

Question 6 The alloy manufacturing company is in the business of castings that can withstand high temperatures. Its primary customers are aviation manufacturers . The company understands that cost of quality is of utmost importance. A cost of quality report is prepared and the details are given below-

(‘`’ in lakhs)

	2016(`)	**2017(`)**
Sales	18,750	15,000
Materials inspection	60	300
Production Inspection	125	160
Finished product Inspection	70	225
Preventive equipment maintenance	60	20
Scrap	300	500
Warranty Repair	400	700
Product Design Engineering	270	150
Vendor Certification	60	10
Direct costs of returned goods	80	250
Training of factory workers	140	40

Product testing equipment Maintenance	60	60
Product Testing labour	90	210
Customer complaint support	30	70
Rework before shipment	180	240
Product liability settlement	60	360
Emergency Repair & maintenance	60	190

a) Prepare a cost of quality Report.
b) Indicate the ratio of each costs to revenues
c) Comment on the results
d) In addition to the financial measures listed above, what other non financial measures should the company monitor in its efforts to monitor to attain TQM.

Question 7 Write short notes on any THREE:

a) Pricing based on Costs
b) Master Budgets
c) Themes of Strategic Management Accounting
d) Distinguish Strategic Cost Management and Management Accounting.
e) How does TQM help as a tool in strategic cost management?

………………………All the Best!..................