

<b>CMA TEST- 17 (Solution)</b>
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Time Allowed: 1 hour 30 min.		Total Marks: 50 Marks
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**Answer to Question no.1: Traditional Method V/s ABC**

<b>Traditional Method</b>	<b>ABC</b>
<ol style="list-style-type: none"> <li>1. Overheads are related to various cost centers (Departments).</li> <li>2. Cost are related to cost centers and hence are not realistic in context of recovery from customer.</li> <li>3. Blanket Recovery Rates are establishes for the business as a whole.</li> <li>4. Costs are assigned to cost units , i.e., a product , a service, a work order etc.</li> <li>5. Cost Centers can't be Eliminated. Hence, not suitable for cost control.</li> </ol>	<ol style="list-style-type: none"> <li>1. Overheads are related to activities and grouped into cost pool.</li> <li>2. Cost are related to activities and hence are more realistic in the context of recovery from customers.</li> <li>3. Activity – wise cost drivers are determined and as such, separate recovery rates are established.</li> <li>4. Costs are assigned to cost objects i.e., customer service segments, distribution channels, etc.</li> <li>5. Essential activities can be simplified and unnecessary activities can be eliminated very Much suitable for cost control.</li> </ol>

**Answer to Question no.2: Job Costing V/s Contract Costing**

<b>Job Costing</b>	<b>Contract Costing</b>
<ol style="list-style-type: none"> <li>1. A job costing is a type of small contract. Also, the cost incurred is small amount.</li> <li>2. In job costing direct allocation of expenses to the jobs is very difficult</li> <li>3. Since job is not run for longer period, the assessment of profit can be done at the end of the job.</li> <li>4. Out of profit earned from each job there is no need for keeping any amount in reserve. In other words, entire amount of profit on the job is to be transferred to P&amp;L account.</li> </ol>	<ol style="list-style-type: none"> <li>1. A contract is a big job. Also, the cost incurred is big amount.</li> <li>2. In contract costing, most of the expenses are directly charged to Contract Account.</li> <li>3. Since a contract may run for a longer period, the profits are ascertained at the end of each accounting period ignoring the % of completion.</li> <li>4. In case of incomplete contracts, reserve are required to be kept against WIP. We check how much work is done and on the basis of work certified, we calculate the proportion of notional profit to be transferred to P &amp; L a/c.</li> </ol>

**Answer to Question no.3**

**Primary Distribution Summary (Direct Method)**

Overheads Apportionment	Total	Production Department			Service Department	
		A	B	C	P	Q
Factory Rent(Area)( 20:10:5:8:5)	48,000	20,000	10,000	5,000	8,000	5,000
Power (H.P. Hours)(8:8:3:2:2)	23,000	8,000	8,000	3,000	2,000	2,000
Depreciation (Value of machine) (40:30:10:15:5)	1,00,000	40,000	30,000	10,000	15,000	5,000
Store Room Expenses (No. of Requisitions)(5:3:10:8:4)	30,000	5,000	3,000	10,000	8,000	4,000
Indirect Material (Direct Material) (10:15:15:16:4)	60,000	10,000	15,000	15,000	16,000	4,000
Canteen Subsidy (No. of workers)(8:7:5:2:3)	25,000	8,000	7,000	5,000	2,000	3,000
Indirect Wages (Direct Labour) (20:10:10:3:2)	90,000	40,000	20,000	20,000	6,000	4,000
Employer's Contribution to E.S.I (Direct Labour)(20:10:10:3:2)	50,000	22,222	11,111	11,111	3,334	2,222
Light (Light points)(100:30:25:15:10)	18,000	10,000	3,000	2,500	1,500	1,000
Factory Supervision (No. of Workers)(8:7:5:2:3)	75,000	24,000	21,000	15,000	6,000	9,000
Traceable overheads	2,05,000	50,000	80,000	30,000	20,000	25,000
Direct Materials	2,00,000				1,60,000	40,000
Direct Labour	50,000				30,000	20,000
	<b>9,74,000</b>	<b>2,37,222</b>	<b>2,08,111</b>	<b>1,26,611</b>	<b>2,77,834</b>	<b>1,24,222</b>

**Secondary Distribution Summary**

Particulars	A	B	C	P	Q
As per Primary Distribution	2,37,222	2,08,111	1,26,611	2,77,834	1,24,222
Expenses of Department P re-distributed to Departments A, B, C and Q (5 : 3 : 7 : 5)	90,978	54,587	1,27,371	(3,63,914)	90,978
Expenses of Department Q re-distributed to Departments A, B, C and P (1 : 2 : 3 : 4)	21,520	43,040	64,560	86,080	2,15,200
	<b>3,49,720</b>	<b>3,05,738</b>	<b>3,18,542</b>		

Assume, total overheads of Department P = ₹ x and Department Q = ₹ y

Hence  $x = 2,77,834 + \frac{4}{10}y$  and  $y = 1,24,222 + \frac{5}{20}x$

Now,  $x = 2,77,834 + \frac{4}{10} \left( 1,24,222 + \frac{5}{20}x \right)$ . Solving, we get  $x = 3,63,914$  and  $y = 2,15,200$

**Answer to Question no.4:**

**Productive Machine Hours**

Total working time in a year	=	3,000 M. hrs.
(-) <u>Un-productive time</u>		
Maintenance	=	400 M. hrs.
Set-up time (8% of 3,000 hrs)	=	240 M. hrs
	=	<u>640 M. hrs</u>
		2,360 M hrs.

**Computation of Machine Hour Rate**

Particulars	Total	Per Machine Hr.
<b>(A) Standing Charges</b>		
Chemical (2,600 × 12)	31,200	
Repairs and maintenance	26,000	
Insurance (25,00,000 × 2%)	50,000	
Chargeable overheads (18,000 × 12)	2,16,000	
Operator salary (18,500 × 12 × 2 × 1/4)	<u>1,11,000</u>	4,34,200/2,360
<b>Total Standing Charges</b>	<b><u>4,34,200</u></b>	<b>= 184</b>
<b>(B) Machine Running Expenses</b>		
Depreciation (25,00,000 - 1,25,000) × $\frac{3,000 \text{ hours}}{25,000 \text{ hours}}$	2,85,000	120.76
Power (25 units per hour @ ₹ 5)	2,95,000	<u>125</u>
<b>Machine Hour Rate</b>		<b><u>429.76</u></b>

**Answer to Question no.5:**

**Job Cost Sheet for the year, 2014**

Particulars	Amount (₹)
Direct Materials	18,00,000
Direct Wages	9,50,000
<b>Prime Cost</b>	<b>27,50,000</b>
Factory overhead	3,80,000
<b>Factory Cost</b>	<b>31,30,000</b>
Administration overhead	2,50,400
<b>Cost of Production</b>	<b><u>33,80,400</u></b>

**Note:** Direct Materials = Opening Stock + Purchases – Closing Stock  
 = ₹ 1,50,000 + ₹ 18,50,000 - ₹ 2,00,000 = ₹ 18,00,000

**Overhead recovery rate: -**

Factory overhead as % of Direct Labour =  $(\frac{₹ 3,80,000}{₹ 9,50,000}) \times 100 = 40\%$  of direct labour

Administration overhead as % of Factory Cost =  $(\frac{₹ 2,50,400}{₹ 31,30,000}) \times 100 = 8\%$  of factory cost

(ii)

**Job Cost Sheet (Estimated price of Job in 2015)**

Particulars	Amount (₹)
Direct Materials	8,00,000
Direct Wages	4,50,000
<b>Prime Cost</b>	<b>12,50,000</b>
Factory overhead (40% of direct labour)	1,80,000
<b>Factory Cost</b>	<b>14,30,000</b>
Administration overhead (8% of factory cost)	1,14,400
<b>Cost of Production</b>	<b>15,44,400</b>
Selling and Distribution Overhead (Cost of delivery)	45,000
<b>Cost of Sales</b>	<b>15,89,400</b>
Profit (₹ 15,89,400 × 10/90)	1,76,600
<b>Selling Price</b>	<b><u>17,66,000</u></b>

**Answer to Question no.6:**

**Computation of Rooms – Days**

**Primary Distribution Summary (Direct Method)**

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Power (H.P. Hours)(8:8:3:2:2)	23,000	8,000	8,000	3,000	2,000	2,000
Depreciation (Value of machine) (40:30:10:15:5)	1,00,000	40,000	30,000	10,000	15,000	5,000

CMA					CA R. K. Mehta	
Store Room Expenses (No. of Requisitions)(5:3:10:8:4)	30,000	5,000	3,000	10,000	8,000	4,000
Indirect Material (Direct Material) (10:15:15:16:4)	60,000	10,000	15,000	15,000	16,000	4,000
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Employer's Contribution to E.S.I (Direct Labour)(20:10:10:3:2)	50,000	22,222	11,111	11,111	3,334	2,222
Light (Light points)(100:30:25:15:10)	18,000	10,000	3,000	2,500	1,500	1,000
Factory Supervision (No. of Workers)(8:7:5:2:3)	75,000	24,000	21,000	15,000	6,000	9,000
Traceable overheads	2,05,000	50,000	80,000	30,000	20,000	25,000
Direct Materials	2,00,000				1,60,000	40,000
Direct Labour	50,000				30,000	20,000
	<b>9,74,000</b>	<b>2,37,222</b>	<b>2,08,111</b>	<b>1,26,611</b>	<b>2,77,834</b>	<b>1,24,222</b>

#### Secondary Distribution Summary

Particulars	A	B	C	P	Q
As per Primary Distribution	2,37,222	2,08,111	1,26,611	2,77,834	1,24,222
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	<b>3,49,720</b>	<b>3,05,738</b>	<b>3,18,542</b>		

Assume, total overheads of Department P = ₹ x and Department Q = ₹ y

$$\text{Hence } x = 2,77,834 + \frac{4}{10}y \text{ and } y = 1,24,222 + \frac{5}{20}x$$

$$\text{Now, } x = 2,77,834 + \frac{4}{10} \left( 1,24,222 + \frac{5}{20}x \right). \text{ Solving, we get } x = 3,63,914 \text{ and } y = 2,15,200$$

#### Answer to Question no.7: Computation of factory overhead chargeable to the order

$$\begin{aligned} \text{(i) Direct Material cost percentage} &= \frac{\text{Amount of Factory Overheads}}{\text{Direct Material Cost}} \times 100 \\ &= \frac{1,26,000}{1,80,000} \times 100 = 70\% \end{aligned}$$

Amount of Overheads chargeable to the order = 70% of ₹ 30,000 = ₹ 21,000

$$\begin{aligned} \text{(ii) Direct Labour cost percentage} &= \frac{\text{Amount of Factory Overheads}}{\text{Direct Labour Cost}} \times 100 \\ &= \frac{1,26,000}{1,50,000} \times 100 = 84\% \end{aligned}$$

Amount of Overheads chargeable to the order = 84% of ₹ 24,750 = ₹ 20,790

$$\begin{aligned} \text{(iii) Labour Hour Rate} &= \frac{\text{Amount of Factory Overheads}}{\text{No. of Labour Hours}} \\ &= \frac{1,26,000}{12,000} = ₹ 10.50 \text{ per hour} \end{aligned}$$

Amount of Overheads chargeable to the order = 1650 Labour hours × ₹ 10.50 = ₹ 17,325

$$\begin{aligned} \text{(iv) Machine Hour Rate} &= \frac{\text{Amount of Factory Overheads}}{\text{No. of Machine Hours}} \\ &= \frac{1,26,000}{10,000} = ₹ 12.60 \text{ per hour} \end{aligned}$$

Amount of Overheads chargeable to the order = 1200 Machine hours × ₹ 12.60 = ₹ 15,120