

Service Costing and Job & Batch Costing

Time Allowed : 1 hour

TEST – 6 (Solution)

Total Marks: 34 Marks

Answer to Question no.1:

Total kms. during the year = (20 X 2) kms. Per round trip
 X 3 round trips per day
 X 25 days p.m. x 12 months
 = 36,000 kms.

Total passenger – kms. during the year = 36,000 kms. X 40 passengers
 = 14,40,000 passenger – kms.

Operating Cost Statement

Particulars	Total	Per passenger-km
Standing Charges:-		
Depreciation $\left[\frac{18,00,000 - 1,20,000}{15 \text{ years}} \right]$	1,12,000	
(1) Insurance (18,00,000 X 3%)	54,000	
(2) Manager-cum-Accountant's Salary	96,000	
(3) Annual Road Tax	50,000	
(4) Driver's Salary (15,000 X 12)	1,80,000	
(5) Conductor's Salary (12,000 X 12)	1,44,000	
(6) Stationery (500 X 12)	6,000	
(7) Garage Rent (2,500 X 12)	30,000	
	6,72,000	0.4667
Running Expenses:-		
(1) Repairs & Maintenance	1,50,000	0.1042
(2) Engine Oil $\left(\frac{\text{₹ } 2,500}{12 \text{ kms.}} \times 36,000 \text{ kms.} \right)$	75,000	0.0521
(3) Diesel Cost $\left(\frac{\text{₹ } 52}{10 \text{ kms.}} \times 36,000 \text{ kms.} \right)$	1,87,200	0.1300
(4) Commission (10% of collections)	1,44,560	0.1004
	5,56,760	0.3867
Total	12,28,760	0.8534
Profit (15% of collects)	2,16,840	0.1506
Total collections	14,45,600	1.004

Computation of Total Collections:-

Assume, Total Collections = ₹ x

Commission = 10% of $x = 0.1 x$

Profit = 15% of $x = 0.15 x$

Now,

Total Cost excluding Commission + Commission + Profit = Total Collections.

$$(6,72,000 + 1,50,000 + 75,000 + 1,87,200) + 0.1 x + 0.15 x = x$$

Solving we get x 14,45,600

Answer to Question no.2:**Computation of Total Beds – days:-**

50 Beds X 200 Days	=	10,000 beds – days
30 Beds X 105 Days	=	3,150 beds – days
20 Beds X 60 Days	=	1,200 beds – days
25 Beds X 10 Days	=	250 beds – days
		<u>14,600 beds – days</u>

Operating Cost Statement

Particulars	Amount (₹)
(1) Building Rent (2,25,000 X 12)	27,00,000
(2) Salary to Managers (50,000 X 12 X 3)	18,00,000
(3) Salary to nurses (18,000 X 12 X 24)	51,84,000
(4) Salary to Ward Boys (9,000 X 12 X 24)	25,92,000
(5) Payment to Doctors (5,50,000 X 12)	66,00,000
(6) Food and laundry Services	39,53,000
(7) Medicines to Patients	22,75,000
(8) Administration Overheads	28,00,000
(9) Depreciation (15% of ₹ 85,00,000)	12,75,000
(10) Bed-hire Charges (250 beds X ₹ 950 per bed per day)	2,37,500
Total Cost	2,94,16,500

Hence, cost per bed per day = $\frac{₹ 2,94,16,500}{14,600 \text{ beds - days}} = ₹ 2,015$ (Approx.)

Answer to Question no.3:**Job Cost Sheet for the year ended 31st December, 2013**

Particulars	Amount (₹)
Direct Materials	5,000
Direct Wages	3,000
Chargeable Expenses	2,000
Prime Cost	10,000
Factory overhead	3,000
Factory Cost	13,000
Administration overhead (Production)	4,000
Cost of Production	17,000
Selling and Distribution Overhead	3,000
Cost of Sales	20,000
Profit	5,000
Selling Price	25,000

Factory overhead as a percentage of direct wages = $\frac{\text{Factory overhead}}{\text{Direct wages}} \times 100 = \frac{3,00,000}{3,000} \times 100 = 100\%$

Administration overhead as a % of factory cost = $\frac{\text{Admn. overhead}}{\text{Factory cost}} \times 100 = \frac{4,000}{13,000} \times 100 = 30.77\%$

Selling and dist. Overhead as a % of factory cost = $\frac{\text{Selling and dist. overhead}}{\text{Factory cost}} \times 100 = \frac{3,000}{13,000} \times 100 = 23.08\%$

Profit as percentage of cost of sales = $\frac{\text{Profit}}{\text{Cost of sales}} \times 100 = \frac{5,000}{20,000} \times 100 = 25\%$

Job Cost Sheet (Estimated price of Job in 2014)

Particulars	Amount (₹)
Direct Materials	8,000
Direct Wages	10,000
Chargeable Expenses	2,000
Prime Cost	20,000
Factory overhead (100% of direct wages)	10,000
Factory Cost	30,000
Administration overhead (30.77% of factory cost)	9,231
Cost of Production	39,231
Selling and Distribution Overhead (23.08% of factory cost)	6,923
Cost of Sales	46,154
Profit	11,538
Selling Price	57,692

Answer to Question no.4:

Annual production (A) = 5.5% of 18,00,00,000 = 99,00,000 units

Set-up cost per Batch (S) = ₹ 33,500.

Inventory Holding Cost p.u. p.a. (I) = 6.25 x 12 = ₹ 75

$$(i) \text{ Economic Batch Quantity} = \frac{\sqrt{2 \times A \times S}}{I}$$

$$= \frac{\sqrt{2 \times 99,00,000 \times 33,500}}{75} = 94,043 \text{ units}$$

(ii) If we follow the policy of EBQ, the aggregate of set-up cost and Holding cost is computed below:-

Set-up Cost (No. of set-ups)(Cost per set-up) $\left(\frac{99,00,000 \text{ Units}}{94,043 \text{ Units/batch}}\right)(\text{₹}33,500)$	₹ 35,26,578
Holding Cost (Average Inventory) (Holding Cost p.u.p.a.) $\left(\frac{94,043 \text{ Units}}{2}\right)(\text{₹}75 \text{ p.u.p.a.})$	₹ 35,26,612
	70,53,190

We are given that the company actually produces 80,000 units per batch. Hence, actual amount of set-up cost and holding cost is computed below:-

Set-up Cost $\left(\frac{99,00,000 \text{ Units}}{80,000 \text{ Units/batch}}\right)(\text{₹}33,500)$	₹ 41,45,625
Holding Cost $\left(\frac{80,000 \text{ Units}}{2}\right)(\text{₹}75 \text{ p.u.p.a.})$	₹ 30,00,000
	₹ 71,45,625

Extra Cost = 71,45,625 – 70,53,190 = ₹ 92,435.

Answer to Question no.5:

Job Costing V/s Contract Costing

Job Costing	Contract Costing
1. A job costing is a type of small contract. Also, the cost incurred is small amount.	1. A contract is a big job. Also, the cost incurred is big amount.
2. In job costing direct allocation of expenses to the jobs is very difficult	2. In contract costing, most of the expenses are directly charged to Contract Account.
3. Since job is not run for longer period, the assessment of profit can be done at the end of the job.	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.
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&L account.	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 & L a/c.