



J.K. SHAH[®]
TEST SERIES
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SUGGESTED SOLUTION

CA INTERMEDIATE

SUBJECT- COSTING

Test Code – CIM 8642

BRANCH - () (Date :)

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ANSWER - 1

(i) Annual Cost Statement of three vehicles

	(Rs.)
Diesel $\{(1,34,784 \text{ km.} \div 4 \text{ km}) \times \text{Rs. } 65\}$ (Refer to working Note 1)	21,90,240
Oil & Sundries $\{(1,34,784 \text{ km} \div 100 \text{ km.} \times \text{Rs. } 250\}$	3,36,960
Maintenance $\{(1,34,784 \text{ km.} \times \text{Rs. } 0.25) + \text{Rs. } 6,000\}$ (Refer to Working Note 2)	39,696
Drivers' salary $\{(\text{Rs. } 24,000 \times 12 \text{ months}) \times 3 \text{ trucks}\}$	8,64,000
Licence and taxes (Rs. 25,000 \times 3 trucks)	75,000
Insurance	45,000
Depreciation $\{(\text{Rs. } 29,00,000 \div 10 \text{ years}) \times 3 \text{ trucks}\}$	8,70,000
General overhead	1,15,600
Total annual cost	45,36,496

(ii) Cost per km. run

$$\begin{aligned} \text{Cost per Kilometer run} &= \frac{\text{Total annual cost of vehicles}}{\text{Total kilometre travelled annually}} \text{ (Refer to Working Note 1)} \\ &= \frac{\text{Rs. } 45,36,496}{1,34,784 \text{ Kms}} = \text{Rs. } 33.66 \end{aligned}$$

(iii) Freight rate per tonne km (to yield a profit of 10% on freight)

$$\begin{aligned} \text{Cost per tonne km.} &= \frac{\text{Total annual cost of three vehicles}}{\text{Total effective tonnes kms.per annum}} \text{ (Refer to Working Note 1)} \\ &= \frac{\text{Rs. } 45,36,496}{6,06,528 \text{ kms}} = \text{Rs. } 7.48 \end{aligned}$$

$$\text{Freight rate per tonne km.} \left(\frac{\text{Rs. } 7.48}{0.9} \right) \times 1 = \text{Rs. } 8.31$$

(3*2 = 6 MARKS)

Working Notes :

- Total Kilometer travelled and Commercial tonnes kilometer (load carried) by three trucks in one year

Truck	One way distance in kms	No. of trips	Total distance covered in km per day (with load)	Total distance covered in km per day (up & down)	Load carried per trip / day in tonnes	Total effective tonnes km
	a	b	c = a \times b	d = c \times 2	e	f = 27/3 \times c
1	16	4	64	128	6	576
2	40	2	80	160	9	720
3	30	3	90	180	12	810
Total			234	468	27	2,106

Total kilometer travelled by three trucks in one year
 (468 km. × 24 days × 12 months) = 1,34,784

Total effective tonnes kilometer of load carried by three trucks during one year
 (2,106 tonnes km. × 24 days × 12 months) = 6,06,528 tonne – km

2. Fixed and variable component of maintenance cost :

$$\text{Variable maintenance cost per km.} = \frac{\text{Difference in maintenance cost}}{\text{Difference in distance travelled}}$$

$$= \frac{\text{Rs.46,050} - \text{Rs.45,175}}{1,60,200 \text{ kms} - 1,56,700 \text{ kms}} = \text{Rs. 0.25}$$

$$\text{Fixed maintenance cost} = \text{Total maintenance cost} - \text{Variable maintenance cost}$$

$$= \text{Rs. 46,050} - 1,60,200 \text{ kms} \times \text{Rs. 0.25} = \text{Rs. 6,000}$$

NOTE : As commercial ton kilometer is asked , ton kilometer = Average ton carried x Total kilometer

(4 MARKS)

ANSWER - 2

**GVL Ltd.
 Contract A/c**

(April 1, 2018 to March 31, 2019)

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
To Materials Issued	18,24,000	By Plant returned to Stores (Working Note 1)	2,40,000
To Labour 12,20,000		By Materials at Site	1,20,000
Add: Outstanding <u>96,000</u>	13,16,000	By W.I.P.	
To Plant Purchased	9,00,000	Certified 51,00,000	
To Expenses 4,00,000		Uncertified <u>1,60,000</u>	52,60,000
Less: Prepaid <u>90,000</u>	3,10,000	By Plant at Site (Working Note 2)	4,80,000
To Notional Profit	17,50,000		
	61,00,000		61,00,000

(4 MARKS)

GVL Ltd.

Contract A/c

(April 1, 2018 to September 30, 2019)

(For Computing estimated profit)

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
To Materials Issued (Rs. 18,24,000 + Rs.32,56,000)	50,80,000	By Material at Site	3,00,000
To Labour Cost (Rs.12,20,000 + Rs.96,000 + Rs.14,24,000* + Rs.1,50,000)	28,90,000	By Plant returned to Stores on 31.03.2019.	2,40,000
To Plant purchased	9,00,000	By Plant returned to Stores on 30.09.2019 (Working Note 3)	4,32,000
To Expenses (Rs.3,10,000 + Rs.7,90,000 + Rs.1,00,000)	12,00,000	By Contractee A/c	1,08,50,000
To Estimated profit	17,52,000		
	<u>1,18,22,000</u>		<u>1,18,22,000</u>

* Labour paid in 2019-20: Rs.15,20,000 – Rs.96,000 = Rs.14,24,000

Working Notes

	(Rs.)
1. Value of the Plant returned to Stores on 31.03.2019	
Historical Cost of the Plant returned	3,00,000
Less: Depreciation @ 20% of WDV for one year	<u>(60,000)</u>
	<u>2,40,000</u>
2. Value of Plant at Site 31.03.2019	
Historical Cost of Plant at Site (Rs.9,00,000 – Rs.3,00,000)	6,00,000
Less: Depreciation @ 20% on WDV for one year	<u>(1,20,000)</u>
	<u>4,80,000</u>
3. Value of Plant returned to Stores on 30.09.2019	
Value of Plant (WDV) on 31.3.2019	4,80,000
Less: Depreciation @ 20% of WDV for a period of 6 months	<u>(48,000)</u>
	<u>4,32,000</u>
4. Expenses Paid for the year 2018-19	
Total expenses paid	4,00,000
Less: Pre-paid at the end	<u>(90,000)</u>
	<u>3,10,000</u>

(6 MARKS)

ANSWER – 3

(i)

Total equivalent single room suites

Nature of suite	Occupancy (Room-days)	Equivalent single room suites (Room-days)
Single room suites	36,000 (100 rooms x 360 days x 100%)	36,000 (36,000 x 1)
Double rooms suites	14,400 (50 rooms x 360 days x 80%)	36,000 (14,400 x 2.5)
Triple rooms suites	6,480 (30 rooms x 360 days x 60%)	32,400 (6,480 x 5)
		1,04,400

(ii) Statement of total cost:

	(Rs.)
Staff salaries	14,25,00,000
Room attendant's wages	4,50,00,000
Lighting, heating and power	2,15,00,000
Repairs and renovation	1,23,50,000
Laundry charges	80,50,000
Interior decoration	74,00,000
Sundries	<u>1,53,00,000</u>
	25,21,00,000
Building rent {(Rs.10,00,000 x 12 months) + 5% on total taking}	1,20,00,000+ 5% on total takings
Total cost	26,41,00,000 + 5% on total takings

Profit is 20% of total takings

Total takings = Rs. 26,41,00,000 + 25% (5% +20%) of total takings Let x

be rent for single room suite

Then $1,04,400 x = 26,41,00,000 + 0.25 \times 1,04,400 x$

Or, $1,04,400 x = 26,41,00,000 + 26,100 x$

Or, $78,300 x = 26,41,00,000$

Or, $x = 3,373$

(iii) Rent to be charged for single room suite = Rs. 3,373

Rent for double rooms suites Rs. 3,373 x 2.5 = Rs. 8,432.5

Rent for triple rooms suites Rs. 3,373 x 5 = Rs. 16,865

(10 MARKS)

ANSWER - 4**1. Computation of Revenue earned**

Particulars	Patient Days	Collection at Rs. 100
At full Capacity	50 x 120 = 6,000	6,000 x 100 = 6,00,000
At Partial Capacity	40 x 80 = 3,200	3,200 x 100 = 3,20,000
Hire of beds (total Hire charge / Hire charge per bed)	Rs. 4,000 / 5 = 800	800 x 100 = 80,000
Total	10,000	10,00,000

(2 MARKS)**2. Revenue Statement of ICU of Divine Public Health Hospital, for the financial year ended.....**

Particulars	Computation	Rs.	Rs.
Income Received	WN 1		10,00,000
Less : Variable Expenses			
Hire Charges	Given	4,000	
Cost of Food	Given	88,000	
Laundry Charges	Given	56,000	
Medicines	Given	70,000	
Janitor	Given	25,000	
Cost of Oxygen	Given	1,08,000	
Doctor's Fees	20,000 x 12	2,40,000	5,91,000
Contribution	(Income less variable costs)		4,09,000
Less :	Fixed Expenses		
Rent	10,000 x 12	1,20,000	
Supervisors Salary	4 x 500 x 12	24,000	
Nurses Salary	8 x 300 x 12	28,800	
Ward Boy Salary	4 x 150 x 12	7,200	
Repairs & Maintenance	Given	7,200	
Administration Charges	Given	99,100	
			2,86,300

Profit	(Contribution less Fixed Expenses)		1,22,700
Profit per Patient Day	Rs. 1,22,700 / 10,000 Patient days		Rs. 12.27

(6 MARKS)

$$\text{3. Contribution per Patient Day} = \frac{\text{Total Contribution}}{\text{Patient Days}} = \frac{4,09,000}{10,000} = 40.90$$

$$\text{Break Even Point} = \frac{\text{Fixed Cost}}{\text{Contribution per Patient}} = \frac{2,86,300}{40.90} = 7,000 \text{ patients.}$$

Note : Cost of Oxygen may also be regarded as Fixed. In such case, Break Even Number = 7,627 Patients.

(2 MARKS)

ANSWER - 5

In case of escalation clause in a contract, a contractor is paid for the any increase in price of materials and rate of labours which are beyond the control of the contractor. Any increase in the cost due to inefficiencies in usage of the materials and labour are not admissible. Thus any increase in cost due to usage in excess of standard quantity or hours are not paid.

(i) Statement Showing Additional claim due to Escalation clause.

	Standard Qty/Hours	Std. Rate (Rs.)	Actual Rate (Rs.)	Variation in Rate (Rs.)	Escalation claim (Rs.)
	(a)	(b)	(c)	(d) = (c - b)	(e) = (a × d)
Material :					
A	3,000	1,000	1,100	+ 100	+ 3,00,000
B	2,400	800	700	- 100	- 2,40,000
C	500	4,000	3,900	- 100	- 50,000
D	100	30,000	31,500	+1500	+ 1,50,000
Material escalation claim					1,60,000
Labour :					
L ₁	60,000	15	18	+ 3	+ 1,80,000
L ₂	40,000	30	35	+ 5	+ 2,00,000
					3,80,000

Statement Showing Final Contract Price

	(Rs.)	(Rs.)
Agreed contract price		1,50,00,000
Add : Agreed escalation claim :		
Material Cost	1,60,000	
Labour Cost	3,80,000	5,40,000
Final Contract Price		1,55,40,000

(7 MARKS)

(ii) Contract Account

Dr.

Cr.

Particulars	(Rs.)	Particulars	(Rs.)
To Material :		By Contractee's A/c.	1,55,40,000
A – (3,400 × Rs. 1,100) 37,40,000			
B – (2,300 × Rs. 700) 16,10,000			
C – (600 × Rs. 3,900) 23,40,000			
D – (90 × Rs. 31,500) 28,35,000	1,05,25,000		
To Labour :			
L ₁ – (56,000 × Rs. 18) 10,08,000			
L ₂ – (38,000 × Rs. 35) 13,30,000	23,38,000		
To Other expenses	13,45,000		
To Estimated Profit	13,32,000		
	1,55,40,000		1,55,40,000

(3 MARKS)