

Preface

It is perhaps the growing significance of Cost Accounting in today's Global Business that our institute has emphasized this subject at CA-IPC level.

This present book is humble attempt to expose the basics of Cost Accounting and to ignite the passion for continuous study and revision from the examination point of view.

This book fully covers the syllabus of Cost Accounting at CA-IPC level. Although this book is primarily meant for examination of CA-IPC but still it covers most of the syllabus of ICWA Inter & CS Inter.

It has been advised that this book gives the students all material required for examination. This book is purely based on examination.

It is suggested that student should adopt the following procedure to get maximum benefit from this book:-

Step 1:-Understand all the concepts deeply with the help of examples as taught in classes.

Step 2:-Understand practical questions and solve them thoroughly in the classes.

Step 3:- After step-2, You have solutions of all the questions in your register. Now is the time to solve all the questions yourself at home by hiding its solution.

Step 4:-Write down typical points you came across while solving question under Step-3.

Step 5:-Now verify solutions to questions point-by-point with the help of pencil and revise all typical points as noted down under step 4.

Step 6:-Repeat step 5 continuously after a certain time to to fix them in your permanent memory.

In a discipline like Cost Accounting which is multi-dimensional, no one claim perfection in writing a book. Hence imperfection could be noticed in this book also, by esteemed readers. So suggestions and criticisms for improvement from all readers are welcome.

CA Purushottam Aggarwal

About the Author....

Purushottam Aggarwal is a through out first class graduate in B.Com (H) in the year 2005. He is a fellow member of The Institute of Chartered Accountants of India.

He pursued Both B.Com(H), regular from Maharaja Agrsen College (Delhi University) and CA-course simultaneously. He qualified all levels of CA in just one attempt by appearing for both groups in CA-Inter (at that time) and CA- Final.

After professional education, he worked in a reputed CA firm and later on, worked in “Bharat Heavy Electricals Limited” (A Mahanavratna Company) in managerial capacity.

After getting professional practical experience of Business Environment. He started his academic career. He has been faculty of Cost Accounting, Financial Management and Advanced Management Accounting in various Management and Professional Institutes. His technique of approaching the subject matter, strategy for preparation of examination and scientific method of teaching are quite popular among the students.

His arrears of specialization include Cost Accounting, Financial Management and Advanced management Accounting.

At Present he is a professional financial consultant and faculty of Cost Accounting, Financial Management and Advanced management Accounting at:

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You Can Also View Complete Marginal Costing Lecture On Youtube Directly

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Solution to all costing Practical
Questions of Nov. 2016

Pg. No. 1

Q 1(a) (i)
$$\text{Piv Ratio} = \frac{\text{change in PFT}}{\text{change in sales}} \times 100 = \frac{\text{Rs } 45 \text{ Lakh} - \text{Rs } 30 \text{ Lakh}}{\text{Rs } 250 \text{ Lakh} - \text{Rs } 200 \text{ Lakh}} \times 100$$

$$= \frac{\text{Rs } 15 \text{ Lakh}}{\text{Rs } 50 \text{ Lakh}} \times 100 = 30\% - -$$

$$\text{Fixed cost} = \text{Contribution} - \text{Profit}$$

(2015) (2015)

$$= \text{Sales}_{(2015)} \times \text{Piv Ratio} - \text{Profit}_{(2015)}$$

$$= \text{Rs } 200 \text{ Lakh} \times 30\% - \text{Rs } 30 \text{ Lakh}$$

$$= \text{Rs } 30 \text{ Lakh}$$

(ii)
$$\text{BEP sales} = \frac{\text{FC}}{\text{Piv Ratio}} = \frac{\text{Rs } 30 \text{ Lakh}}{30\%}$$

$$= \text{Rs } 1 \text{ Crore}$$

(iii)
$$\text{Desired sales} = \frac{\text{FC} + \text{Desired PFT}}{\text{Piv Ratio}}$$

$$= \frac{\text{Rs } 30 \text{ Lakh} + \text{Rs } 70 \text{ Lakh}}{30\%}$$

$$= \text{Rs } 3.34 \text{ Crore}$$

Q 1(b) (i). Re-order Qty (EOQ) =
$$\sqrt{\frac{2 \times A \times O}{C}}$$

$$= \sqrt{\frac{2 \times 72000 \text{ units} \times \text{Rs } 2250}{\text{Rs } 300 \times 12\%}}$$

$$= 3000 \text{ units}$$

$$(i) \text{ Re-ordering level} = \text{MAX. Consumption per day} \times \text{MAX Lead time}$$

$$= 400 \text{ units} \times 20 \text{ days}$$

$$= 8000 \text{ units}$$

$$(ii) \text{ Minimum stock level} \Rightarrow \text{ROL} - \text{Avg. Consumption per day} \times \text{Avg. lead time}$$

$$\Rightarrow 8000 \text{ units} - 300 \text{ units} \times 14 \text{ days}$$

$$= 3800 \text{ units}$$

$$(iv) \text{ Maximum stock level} \Rightarrow \text{ROL} + \text{ROL} - \text{MIN. Consumption per day} \times \text{Min. lead time}$$

$$\Rightarrow 8000 \text{ units} + 3000 \text{ units} - 200 \text{ units} \times 8 \text{ days}$$

$$\Rightarrow 9400 \text{ units}$$

$$(v) \text{ Danger level} \Rightarrow \text{Avg. Consumption per day} \times \text{Emergency purchase}$$

$$\Rightarrow 300 \text{ units} \times 5 \text{ days}$$

$$\Rightarrow 1500 \text{ units}$$

Q2(a) (i) let Assume selling price be Rs x.

$$\text{P.T} = \text{Sales} - \text{Var. Cost} - \text{Fixed Cost}$$

$$20000 \times x \times \frac{10}{100} = 20000 \times x - 20000 \times \text{Rs } 20 - \text{Rs } 320000$$

$$x (\text{selling price}) = \text{Rs } 40$$

$$BEP = \frac{FC}{PV \text{ Ratio}} = \frac{Rs\ 320000}{50\%} = Rs\ 640000$$

$$PV \text{ Ratio} = \frac{\text{selling price p. unit} - \text{Var. Cost p. unit}}{\text{selling price p. unit}} \times 100$$

$$= \frac{Rs\ 40 - Rs\ 20}{Rs\ 40} \times 100 = 50\%$$

$$\text{Margin of Safety} = \text{Total sales} - BEP \text{ sales}$$

$$= 20000 \text{ units} \times Rs\ 40 - Rs\ 640000$$

$$\Rightarrow Rs\ 160000$$

$$(ii) \text{ new selling price} = \text{old selling price} \times (1 - 10\%)$$

$$= Rs\ 40 \times \frac{90}{100} = Rs\ 36$$

$$\text{new sales units} = 20000 \text{ units} + 5000 \text{ units}$$

$$= 25000 \text{ units}$$

$$\text{new profit} = \text{Total sales} - \text{Var. Cost} - \text{Fixed Cost}$$

$$= 25000 \text{ units} \times Rs\ 36 - 25000 \text{ units} \times Rs\ 20 - \overset{Rs}{320000}$$

$$= Rs\ 200000$$

$$\text{new BEP} = \frac{\text{Fixed Cost}}{\text{new PV Ratio}} = \frac{Rs\ 320000}{44.44\%} = Rs\ 720000$$

$$\text{new PV Ratio} = \frac{\text{new selling price} - \text{Var. Cost p. unit}}{\text{new selling price p. unit}} \times 100$$

$$= \frac{Rs\ 36 - Rs\ 20}{Rs\ 36} \times 100 = 44.44\%$$

$$\text{new MOS} = \text{Total sales} - \text{New BEP}$$

$$= 25000 \text{ units} \times Rs\ 36 - Rs\ 720000$$

$$= Rs\ 180000$$

Statement showing Impact

	Profit (Rs)	BEP (Rs)	MOS (Rs)
Old	80000	640000	160000
New	80000	720000	180000
Impact	No	increased by 80000	increased by 20000

(iii) $MOS = \frac{\text{Profit}}{\text{P/V Ratio}}$

based on old P/V Ratio $\Rightarrow \frac{Rs. 640000}{50\%} = Rs. 1280000$

based on new P/V Ratio $\Rightarrow \frac{Rs. 640000}{44.44\%} = Rs. 1440000$

Q. 3(a)

Costing Profit & Loss Account
for the year ended on March 2016

Particulars	Amount (Rs)	Particulars	Amount (Rs)
To D. material	26,80,000	By sales	62,00,000
To D. Labour	17,80,000	By closing stock	226430
To factory OH (20% of Prime cost)	8,92,000	$\frac{5887200}{52000 \text{ units}} \times 2000 \text{ units}$	
i.e. 20% of [26,80,000 + 17,80,000]		$\rightarrow 2680000$	
To Admin Exp. (10% of fac. cost)	5,35,200	$+ 1780000$	
i.e. 10% of [26,80,000 + 17,80,000 + 8,92,000]		$+ 892000$	
To Selling OH	5,00,000	$+ 535200$	
[50000 units x Rs 10]		<u>5887200</u>	
To net profit (bal. fig.)	39,230		
	<u>64,26,430</u>		<u>64,26,430</u>

Reconciliation Statement

Particulars	+ (Rs) items	- (Rs) items
Profit as per Cost book	39230	
Factory OH (less) booked in cost book (892000 - 950000)		58000
Adm. Exp. (Excess) booked in cost Records (535200 - 480200)	55000	
Selling OH (Excess) booked in cost Records (500000 - 250000)	250000	
Dividend (not booked) in cost book	20000	
Preliminary Exp. not written off in cost book		50000
Cl. stock booked at Excess Value in cost Records (226430 - 150000)		76430
Profit as per Financial Records		179800
	<u>364230</u>	<u>364230</u>

Q. 4(a) total km = $50 \text{ km} \times 2 \text{ sides} \times 2 \text{ trips} \times 25 \text{ days} \times$
 $12 \text{ months} \times 6 \text{ buses}$
 $= \text{540000 km.}$

total Passenger km. = $540000 \text{ km} \times 48 \text{ passengers} \times 75\%$
 $= 1,94,40,000 \text{ Passenger-km.}$

P.T.O

Statement of Operating cost

Particulars	Amount (Rs)
<u>Fixed Exp.</u>	
Garage Rent (Rs 6000 X 12 months)	72,000
Drivers salaries (Rs 4000 X 12 month X 6 buses)	2,88,000
Conductors salaries (Rs 1600 X 12 month X 6 buses)	1,15,200
Cleaners salaries (Rs 1000 X 12 month X 6 buses)	72,000
Manager's salary (Rs 10000 X 12 month)	1,20,000
Road TAX (Rs 6000 X 4 Quarters)	24,000
Office Exp (Rs 2500 X 12 months)	30,000
Depreciation (Rs 750000 X 20% X 6 buses)	900,000
Insurance [Rs 750000 X 4% X 6 buses]	1,80,000
Total Fixed Exp. (A)	<u>1,80,1200</u>
<u>Variable Exp.</u>	
Annual Repairs (Rs 24000 X 6 buses)	1,44,000
Diesel $\left[\frac{540000 \text{ km}}{6 \text{ km}} \times \text{Rs } 66 \right]$	5,94,000
Engine Oil $\left[\frac{540000 \text{ km}}{1000 \text{ km}} \times \text{Rs } 2000 \right]$	1,08,000
Total Variable Exp. (B)	<u>7,16,4000</u>
Total cost (A + B)	8,96,5200
+ Profit (33.32% of Total Takings OR 50% of total cost)	4,48,2600
Total Takings	<u>13,44,7800</u>

$$\text{bus fare per passenger km.} = \frac{\text{Total Takings}}{\text{Total P. km}} = \frac{\text{Rs } 13,44,7800}{13,44,0000 \text{ passenger-km}}$$

$$\text{Rs.} \\ = 0.69$$

Q. 6 @

Material

$SP \times SQ$ $Rs. 4.50 \times \left[\begin{array}{l} 1900 \text{ units} \\ \times \\ 10 \text{ pieces} \\ \text{p. unit} \end{array} \right]$ $= Rs. 85500$	$SP \times AQ$ $Rs. 4.50 \times 21000 \text{ pieces}$ $= Rs. 94500$	$AP \times AQ$ $\frac{Rs. 90000}{22000 \text{ pieces}} \times 21000 \text{ pieces}$ $= Rs. 85909$
USAGE		Price

(i) Material Price Variance = $Rs. 94500 - Rs. 85909 = Rs. 8591 (F)$

(ii) Material Usage Variance = $Rs. 85500 - Rs. 94500 = Rs. 9000 (A)$

Labour

$SR \times S.HR$ $Rs. 6 \times \left[\begin{array}{l} 1900 \text{ units} \\ \times \\ 2.5 \text{ HR} \end{array} \right]$ $= Rs. 28500$	$SR \times A.HR$ $Rs. 6 \times 5150 \text{ HR}$ $= Rs. 30900$	$AR \times A.HR$ $\frac{Rs. 25750}{5150 \text{ HR}} \times 5150 \text{ HR}$ $= Rs. 25750$
efficiency		Rate

(iii) ~~Labour~~ Labour Rate Var. = $Rs. 30900 - Rs. 25750$
 $= Rs. 5150 (F)$

(iv) Labour efficiency Var. = $Rs. 28500 - Rs. 30900$
 $= Rs. 2400 (A)$

Fried O/H

Std. Fried O/H $\frac{\text{SR} \times \text{S.HR}}{\text{SR} \times \text{S.HR}}$	Recovered O/H $\frac{\text{SR} \times \text{A.HR}}{\text{SR} \times \text{A.HR worked}}$	budgeted Fried O/H $\frac{\text{SR} \times \text{budgeted HR}}{\text{SR} \times \text{budgeted HR}}$	Actual incurred Fried O/H $\frac{\text{AR} \times \text{A.Hour}}{\text{AR} \times \text{A.Hour}}$
$\text{Rs } 8 \times \left[\frac{1900 \text{ units}}{2.50 \text{ HR}} \right]$	$\text{Rs } 8 \times 5150 \text{ HR}$		
$= \text{Rs } 38000$	$= \text{Rs } 41200$	$= \text{Rs } 42000$ (Given)	$= \text{Rs } 46000$ (Given)
efficiency		capacity	Exp. Var.

(V) Fried O/H Exp. Var. = $\text{Rs } 42000 - \text{Rs } 46000 = \text{Rs } 4000 \text{ (A)}$

(vi) " " Eff. Var. = $\text{Rs } 38000 - \text{Rs } 41200 = \text{Rs } 3200 \text{ (A)}$

(vii) " " Cap. Var = $\text{Rs } 41200 - \text{Rs } 42000 = \text{Rs } 800 \text{ (A)}$