

Result Overview			
Awarded Marks: 95 Marks:100		Max	
NA Not Attempted	Optional	M Marked	
Q1 Compulsory (Score: 19/20)			
Question No	Awarded Marks	Maximum Marks	Status
Q1	19	20	M
1a	5	5	M
1b	5	5	M
1c	4	5	M
1d	5	5	M
Q2_Q6 (Score: 76/80)			
Question No	Awarded Marks	Maximum Marks	Status
Q2	20	20	M
2a	10	10	M
2b	10	10	M
Q3	19	20	M
3a	9	10	M
3b	10	10	M
Q4	20	20	M
4a	10	10	M
4b	10	10	M
Q5	17	20	M
5a	8	10	M
5b	9	10	M
Q6	0	20	O
6a	0	5	O
6b	0	5	O
6c	0	5	O
6d	0	5	O



The Institute of Chartered Accountants of India

Code: IN3CM419078
Subject : 03 Cost and Management Accounting

Total Marks: 100
Marks Obtained : 95

Subject: _____

Number of Answer Books used : Main + _____ additional sheets

For use by ICAI only

419078



27 JAN 2021

Q.No.	To be ticked (✓) by the candidate against the Questions answered	Marks Awarded (To be filled by Examiner)					Total
		a	b	c	d	e	
1	✓						
2	✓						
3	✓						
4	✓						
5	✓						
6							
7							
8							
9							
10							
11							
12							
13							
14							
Total							

Total Marks awarded (in words) _____

Examiner's Signature _____

Use only Blue / Black Ball Point Pen to write and shade the circles.
AVOID RED PEN.
Write the marks in the boxes before shading the respective circles.

Total Marks awarded

0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9



The Institute of Chartered Accountants of India

Code: IN3CM419078
Subject : 03 Cost and Management Accounting

Total Marks: 100
Marks Obtained : 95

INSTRUCTIONS TO THE CANDIDATE

Answers are not to be written on this page

1. Answers should be written in figures and words in the allotted space at the right hand corner of the cover page and nowhere else including additional answer book/s and graph paper.
2. Roll number should be written in the box in numbers and darken the appropriate circles of the OMR bubbles provided in the right hand corner of the cover page with **Black / Blue** ball point pen.
3. Particulars such as name of Examination, Group No., Paper No. and subject at the appropriate space at the left hand upper corner.
4. Remove the Bar Code sticker of the particular paper from the Attendance sheet and affix the same on the box provided in the right hand corner of the cover page.
5. Since a machine will read the Roll no., please check and ensure that Roll number written in numbers, words and circles darkened are correct. In case any candidate fills this information wrongly, Institute will not take any responsibility for rectifying the mistake.
6. The answers should be written neatly and legibly
7. The answer to each question must be commenced on a fresh page and question number prominently written at the top of each answer. Alternatively, the question number should be distinctly written in the margin.
8. The answer to each question in all parts should be fully completed in one page or in a consecutive set of pages, before the next question is taken up.
9. Writing of Roll number in place/s other than the space provided for the purpose or writing distinguishing mark, symbols like "OM", "Sri", "Jesus", "786", etc., will tantamount to adoption of "unfair means"
10. Before submission of answer book to the invigilator take care to score out (X) blank pages, if any, that you might have left.



The Institute of Chartered Accountants of India

Code: IN3CM419078
Subject: 03 Cost and Management Accounting

Total Marks: 100
Marks Obtained: 95

3



Answer (2a)

Working Notes:-

(1) Total time taken = 50 workers $\times$ 24 days
 $\times$ 8 hours per day
 $=$ 9,600 hours

(2) ~~Total time~~
Total units produced 6120 units
Time allowed per unit 1.975 hours

Total time allowed 12,087 hours

Time taken 9,600 hours

Time ~~saved~~ = 12,087 - 9,600
 $=$ 2,487 hours

(B) Calculation of Bonus

(a) Halsey Scheme :- Time saved $\times$ 50% $\times$ Time rate
 $= 2,487 \times 50\% \times 50$
 $=$ 62,175



The Institute of Chartered Accountants of India

Code: IN3CM419078
Subject: 03 Cost and Management Accounting

Total Marks: 100
Marks Obtained: 95

4

(b) Rowan Scheme :- $\frac{\text{time saved} \times \text{time allowed}}{\text{time allowed}} \times \text{time rate}$

$= \frac{2,487 \times 9.60 \times 50}{12,087}$

2aStep1 $= \boxed{98,764 \text{ ₹}}$

(4) Time Wages = $\text{Total time taken} \times 50$

$= 9.60 \times 50$
 $= \boxed{4,80,000 \text{ ₹}}$

(9) Required :-

	<u>Halsey Scheme</u>	<u>Rowan Scheme</u>
<u>Total Wages</u>	<u>Time Wages + Bonus</u>	<u>Time Wages + Bonus</u>
(a)	$= 4,80,000 + 62,175$ $= \underline{5,42,175 \text{ ₹}}$	$= 4,80,000 + 98,764$ $= \underline{5,78,764 \text{ ₹}}$
<u>Wages without scheme</u>	(b) <u>Time Wages</u> $= 4,80,000 \text{ ₹}$	<u>Time Wages</u> $= 4,80,000 \text{ ₹}$
3 2aStep2 <u>Increase in Wages (a-b)</u>	$= \underline{62,175 \text{ ₹}}$	$= \underline{98,764 \text{ ₹}}$



The Institute of Chartered Accountants of India

Code: IN3CM419078
Subject: 03 Cost and Management Accounting

Total Marks: 100
Marks Obtained: 95

5

% increase in earnings

$$\frac{\text{Increase in wages} \times 100}{\text{Time Wages}}$$
$$= \frac{62.175 \times 100}{4,83,000}$$
$$= 12.95\%$$

② Earnings per hour

$$= \frac{\text{Total Wages}}{\text{Time taken}}$$
$$= \frac{5,42,175}{9,600}$$
$$= 56.47 \text{ ₹ per hour}$$

Increase in wages

$$\frac{\text{Increase in wages} \times 100}{\text{Time Wages}}$$
$$= \frac{96,764 \times 100}{4,83,000}$$
$$= 20.57\%$$

Total Wages

$$\frac{\text{Total Wages}}{\text{Time taken}}$$
$$= \frac{5,78,764}{9,600}$$
$$= 60.28 \text{ ₹ per hour}$$

(ii) Under normal scheme

$$\text{Cost per unit} = 1.975 \times 50$$
$$= 98.75 \text{ ₹}$$

→ Halsey Scheme per unit = $\frac{\text{Total Wages}}{\text{Units produced}}$

$$= \frac{5,42,175}{6,120}$$
$$= 88.59 \text{ ₹}$$

Earnings per unit = $98.75 - 88.59 = 10.15 \text{ ₹ per unit}$



The Institute of Chartered Accountants of India

Code: IN3CM419078
Subject: 03 Cost and Management Accounting

Total Marks: 100
Marks Obtained: 95

→ ~~Rowan~~ per unit cost = $\frac{5,78,764}{6,120}$
~~94.56~~
= $\boxed{94.56 \text{ ₹ per unit}}$

→ Savings per unit = ~~98.58~~
 $98.75 - 94.58$
= $\boxed{4.19 \text{ ₹ per unit}}$

(iii) ~~Savings~~ Savings per unit is more in Halsey scheme as compared to ~~&~~ Rowan scheme.

But, the company want to increase the earnings by 20%.

Which can easily be seen is achieved in Rowan scheme in (?).

Thus, Rowan scheme is recommended

10 2a



The Institute of Chartered Accountants of India

Code: IN3CM419078
Subject: 03 Cost and Management Accounting

Total Marks: 100
Marks Obtained: 95

7



Ans (26)

DO NOT WRITE ANYTHING HERE

DO NOT WRITE ANYTHING HERE

DO NOT WRITE ANYTHING HERE

Cost of Sales	4,09,000
(-) ~~①~~ Selling Exp	(22,000)
(-) ~~②~~ Gen & Adm Exp	(16,000)
Cost of ~~Prod~~ Prod ⁿ	3,69,000
(+) Closing stock of FG	62,000
(-) Op stock of FG	(50,000)
<u>Cost of Factory cost</u>	<u>3,79,000</u>
(+) Closing stock of WIP	30,000
(-) Op stock of WIP	(20,000)
<u>Cost of Factory cost</u>	<u>3,89,000</u>
(-) ~~③~~ Factory OH $\left[\frac{1,20,000}{120\%} \right]$	(1,09,000)
<u>Prime cost</u>	<u>2,80,000</u>
(-) ~~④~~ Wages	(1,20,000)
	<u>1,60,000</u>
<u>Material Consumed</u>	
(+) Closing stock of mat	25,000
(-) Op stock of material	(20,000)
<u>Material purchased</u>	<u>165,000 ₹</u>



The Institute of Chartered Accountants of India

Code: IN3CM419078
Subject: 03 Cost and Management Accounting

Total Marks: 100
Marks Obtained: 95

Particulars		Amount (₹)
Material consumed	2bStep1	1,65,000
(+) Opening stock		24,000
(-) Closing stock		(25,000)
Material consumed		1,64,000
(+) Wages		1,20,000
Prime cost		2,84,000
(+) Factory O/Hs $[1,20,000 \times 10\%]$		1,20,000
Gross Factory cost		3,84,000
(+) WIP		24,000
(-) WIP		(30,000)
Cost of Production	2bStep2	3,78,000
(+) Opening stock of FG		50,000
(-) Closing stock of FG		(60,000)
Cost of goods sold		3,68,000
(+) Selling Exp		22,000
(+) Gen & Admin. Exp		18,000
Cost of sales	2bStep3	4,08,000
Profit		1,00,000
Sales	2b	5,00,000
	Q2	



The Institute of Chartered Accountants of India

Code: IN3CM419078
Subject: 03 Cost and Management Accounting

Total Marks: 100
Marks Obtained: 95

9

Ans. (36)

Particulars	First Six Months (50%)	Next 3 Months (75%)	Last 2 Months (100%)	Total
Units Produced	1,50,000 units	1,12,500 units	1,50,000 units	4,12,500 units
Direct material	99,00,000	67,50,000	90,00,000	2,47,50,000
(+) Labour	45,00,000	33,75,000	45,00,000	1,23,75,000
(+) Variable OH	1,35,00,000	1,01,25,000	1,35,00,000	3,71,25,000
(+) Fixed OH	22,50,000	16,87,500	22,50,000	61,87,500
(+) Semi Variable OH	32,75,000	16,37,500	16,37,500	65,50,000
Total cost	2,12,50,000	1,62,500	2,12,500	6,25,000
Profit Required	1,92,75,000	1,36,12,500	1,76,00,000	5,04,87,500
Sales Required				25,00,000
				5,29,87,500



The Institute of Chartered Accountants of India

Code: IN3CM419078
Subject: 03 Cost and Management Accounting

Total Marks: 100
Marks Obtained: 95

10

(1) $\text{Avg Selling Price} = \frac{\text{Total Cost} + \text{Profit}}{\text{Total Units}}$

$= \frac{5,04,87,500 + 25,00,000}{4,12,500}$

$= 128.45 \text{ ₹ per toy}$

$= 128.45 \text{ ₹ per toy}$

(2) (a) Sale at ₹130 per toy +

Sales = 4,12,500 × 130 = 5,36,25,000

Less: - Cost of sales = 5,04,87,500

Profit = 31,37,500

Since, more than 25,00,000,

So ~~accept~~ accept



The Institute of Chartered Accountants of India

Code: IN3CM419078
Subject: 03 Cost and Management Accounting

Total Marks: 100
Marks Obtained: 95

11

(6) Sale at ₹129 per toy +

$$\begin{array}{r} \text{Sales} = 129 \times 4,12,500 = 5,32,12,500 \\ \text{less:- cost} = \underline{5,04,87,500} \\ \hline 27,25,000 \end{array}$$

Since, more than 25,00,000.

So, Accept ☐

Working Notes:-

⇒ 70% capacity = 4,29,000 toys
⇒ 100% capacity = $\frac{4,29,000 \times 100}{70}$
= 6,09,000 toys

Period	100% Capacity	Revised Capacity
First 6 Months	3,00,000 ($\frac{6,09,000}{2}$) (50%)	1,50,000
Next 3 Months	1,50,000 ($\frac{6,09,000}{4}$) (75%)	1,12,500
Next 3 Months	1,50,000 (100%)	1,50,000
<u>Total units</u>		<u>4,12,500</u>



The Institute of Chartered Accountants of India

Code: IN3CM419078
Subject: 03 Cost and Management Accounting

Total Marks: 100
Marks Obtained: 95

12

(3) Semi-Variable O/H's

At 60% capacity = 5,09,000 ₹ per year

→ For first six months = $\frac{5,09,000 \times 6}{12}$
= 2,50,000 ₹

→ For next 3 months (75%) = $\frac{5,09,000 + (50,000 \times 3)}{12} \times 3$
= $\frac{8,50,000}{12} \times 3 = 1,62,500 ₹$

→ For further 3 months (100%) = $\frac{6,50,000 + 50,000 + (75,000 \times 2)}{12} \times 3$
= $\frac{8,50,000}{12} \times 3 = 2,12,500 ₹$

Total Semi-Variable = 2,50,000
+ 1,62,500
+ 2,12,500
6,25,000

10 3b



The Institute of Chartered Accountants of India

Code: IN3CM419078
Subject: 03 Cost and Management Accounting

Total Marks: 100
Marks Obtained: 95

13



Ans (4a)

Working Notes (1) Costs in each Dept

Particulars	1	2	3
RM	48,000	—	—
DL	7,000	4,50,000	6,50,000
MO	46,000	2,10,000	4,50,000
	57,98,000	6,60,000	11,00,000
	Joint Cost	Further Processing Cost of 4	Further Processing Cost of 2

(2) Total Production +

	X	Y	Z
Sales	10,000	15,000	22,000
(+ Closing Stock)	5,000	—	7,500
	15,000	15,000	30,000



The Institute of Chartered Accountants of India

Code: IN3CM419078
Subject: 03 Cost and Management Accounting

Total Marks: 100
Marks Obtained: 95

14

(i) Joint cost allocation in NPV +

Particulars	X	Y	Z	Total
Production	15000 lbs.	15,000 li	3000 li	60,000 li.
Sales Price after Further Process		64	50	—
At Split off	30			
Sales Value	4,50,000	4,60,000	15,00,000	29,10,000
less:- FPC	—	(6,60,000)	(11,00,000)	(17,60,000)
NPV	4,50,000	3,00,000	4,00,000	11,50,000
Joint cost allocation in NPV	2,34,000	1,56,000	2,08,000	5,98,000

4aStep1

4aStep2

Joint cost allocation = $\frac{\text{NPV of Product} \times \text{Total joint cost}}{\text{Total NPV}}$

X = $\frac{4,50,000}{11,50,000} \times 5,98,000 = 2,34,000 \text{ ₹}$

Similarly +

Y = $\frac{3,00,000}{11,50,000} \times 5,98,000 = 1,56,000 \text{ ₹}$

Z = $\frac{4,00,000}{11,50,000} \times 5,98,000 = 2,08,000 \text{ ₹}$



The Institute of Chartered Accountants of India

Code: IN3CM419078
Subject : 03 Cost and Management Accounting

Total Marks: 100
Marks Obtained : 95

15



(ii)

Cost Statement

Particular	X	Y	Z	
Joint Cost allocated	234,000	1,56,000	2,08,000	
Further P.C.	—	6,69,000	11,09,000	
Cost of cost (a)	234,000	8,16,000	13,08,000	
Units (b)	15,000 d.	15,000 l	30,000 l	
Inventory (c)	5,000 l	—	7,500 l	
Prop. of inv.	1/3	0	1/4	
Cost of inventory (d)	78,000	—	3,27,000	
Cost of goods sold	1,56,000	8,16,000	9,81,000	

(iii)

Gross Profit Statement

Particular	X	Y	Z	Total
Sales	3,09,000 (12,000 x 25)	9,69,000 (15,000 x 64)	11,25,000 (22,500 x 50)	23,85,000
(-) Cost of goods sold	(1,56,000)	(8,16,000)	(9,81,000)	(19,53,000)
G.P.	1,44,000	1,44,000	1,44,000	4,32,000



The Institute of Chartered Accountants of India

Code: IN3CM419078
Subject : 03 Cost and Management Accounting

Total Marks: 100
Marks Obtained : 95

16

Working Note → Ans. (3a)

(i) Calculation of 100% Capacity Sales +

Particulars	A	B	After Merger
Capacity Sales	90%	60%	—
Sales	63,00,000	48,00,000	
3aStep1			
at 100% Capacity	70,00,000	80,00,000	1,50,00,000
Variable Cost	39,60,000	22,50,000	100% Capacity
at 100% Capacity	44,00,000	37,50,000	81,50,000
Contributions			68,50,000

2 3aStep2

(ii)

	A	B	After Merger
Sales	63,00,000	48,00,000	1,11,00,000
(-) Variable	(39,60,000)	(22,50,000)	(62,10,000)
Contribution	23,40,000	25,50,000	48,90,000
Fixed Cost	13,00,000	15,00,000	(28,00,000)
Profit	10,40,000	10,50,000	20,90,000

DO NOT WRITE ANYTHING HERE

DO NOT WRITE ANYTHING HERE

DO NOT WRITE ANYTHING HERE



The Institute of Chartered Accountants of India

Code: IN3CM419078
Subject: 03 Cost and Management Accounting

Total Marks: 100
Marks Obtained: 95

17



(iii) PV Ratio after Merge +

$$= \frac{\text{Contribution}}{\text{Sales}} \times 100$$
$$= \frac{46,99,000}{1,11,09,000} \times 100 = \frac{66,50,000}{1,50,09,000} \times 100$$
$$= \boxed{44.05\%} \Rightarrow \boxed{45.667\%}$$

Required +

(i) Break-even Sales = $\frac{\text{Fixed Cost}}{\text{PV Ratio}}$

$$= \frac{28,09,000}{44.05\% \text{ } 45.667\%}$$
$$\boxed{61,31,342} = \boxed{63,56,413}$$

Capacity Utilisation at BEP = $\frac{\text{BEP}}{100\% \text{ Sales}} \times 100$

$$= \frac{61,31,342}{1,50,09,000} \times 100 = \frac{63,56,413}{1,50,09,000} \times 100$$
$$= \boxed{40.875\%} = \boxed{42.376\%}$$

3 3aStep3



The Institute of Chartered Accountants of India

Code: IN3CM419078
Subject: 03 Cost and Management Accounting

Total Marks: 100
Marks Obtained: 95

18



(ii) Profit at 80% capacity +
Sales = $(1,50,00,000 \times 80\%) = 1,20,00,000$
Var PV ratio = 45.667% ~~44.05%~~
Contribution = $1,20,00,000 \times \frac{45.667}{100}$
 $= \cancel{52,80,000} = 54,80,040$

Profit = Contribution - FC
 $= \cancel{52,80,000} - 28,00,000$
 $= 54,80,040 - 28,00,000$
 $= \boxed{26,80,040}$

(iii) Sales = $\frac{\text{Fixed Cost} + \text{Desired Profit}}{\text{PV ratio}}$
 $= \frac{28,00,000 + 69,932}{45.667\%}$
 $= \cancel{19,26,9932}$
 $= \boxed{19,26,9932}$



The Institute of Chartered Accountants of India

Code: IN3CM419078
Subject: 03 Cost and Management Accounting

Total Marks: 100
Marks Obtained: 95

19

19

DO NOT WRITE ANYTHING HERE

(15) Sales = $\frac{\text{P.L.T Profit}}{\text{P.L.T. ratio}}$

= $\frac{29,43,000 + 68,000}{45.667\%}$

= $\frac{1,92,57,650}{100}$

= $1,92,57,650$

% increase = $\frac{1,95,76,500 - 1,92,57,650}{1,92,57,650} \times 100$

= 1.59%

2 3aStep4

9 3a

19 Q3

DO NOT WRITE ANYTHING HERE



The Institute of Chartered Accountants of India

Code: IN3CM419078
Subject: 03 Cost and Management Accounting

Total Marks: 100
Marks Obtained: 95

20



Ans (5a)

(i) Calculation of Patient Days+

$$\rightarrow 120 \times 100 = 12,000$$

$$\rightarrow 60 \times 40 = 2,400$$

$$\rightarrow \text{Extra Beds} = 400$$

$$\text{Total Patient days} = 15,600$$

2

5aStep1

Calculation of extra Beds+

$$\text{Patient days} \times \text{FSD} = 20,000$$

$$\Rightarrow \text{Patient days} = \frac{20,000}{50} = 400 \text{ patient days}$$

Profit

$$\begin{array}{r} 16,000 \\ 14,000 \\ 10,000 \\ \hline 9,000 \end{array}$$
$$\begin{array}{r} 13,000 \\ 12,000 \\ \hline 1,000 \end{array}$$



The Institute of Chartered Accountants of India

Code: IN3CM419078
Subject: 03 Cost and Management Accounting

Total Marks: 100
Marks Obtained: 95

21



(i)

Profit Statement

Sales $[15,000 \times 200]$	31,20,000	
<u>less- Variable Costs</u>		
Doctors $(39,000 \times 12)$	3,60,000	
Food supplied	4,40,000	
Caretaker	1,25,000	
Laundry	1,49,000	
Medicines	2,68,000	
~~Cost of oxygen~~ Repairs	28,000	
hire charges	20,000	(13,93,000)
Contribution		17,27,000
<u>less- Fixed Costs</u>		
Superior $[2 \times 12 \times 5,000]$	1,20,000	
Nurses $[4 \times 12 \times 3,000]$	1,44,000	
Wardboys $[2 \times 1,500 \times 12]$	36,000	
5aStep2 ut $[50,000 \times 12]$	6,00,000	
General Adm.	71,000	
Cost of oxygen	71,000	(10,46,000)
Profit		6,81,000



The Institute of Chartered Accountants of India

Code: IN3CM419078
Subject: 03 Cost and Management Accounting

Total Marks: 100
Marks Obtained: 95

22

(ii) Contribution per Patient day = $\frac{\text{Contribution}}{\text{Patient days}}$

$$= \frac{172700}{15600}$$
$$= 110.705 \text{ ₹}$$

Profit per Patient day = $\frac{\text{Profit}}{\text{Patient days}}$

$$= \frac{68000}{15600}$$
$$= 43.65 \text{ ₹}$$

(iii) Break even point = $\frac{\text{Fixed cost}}{\text{Contribution per Patient day}}$

$$= \frac{104600}{110.705}$$
$$= 9448.5 \text{ or } 9449 \text{ Patient days}$$

5aStep3

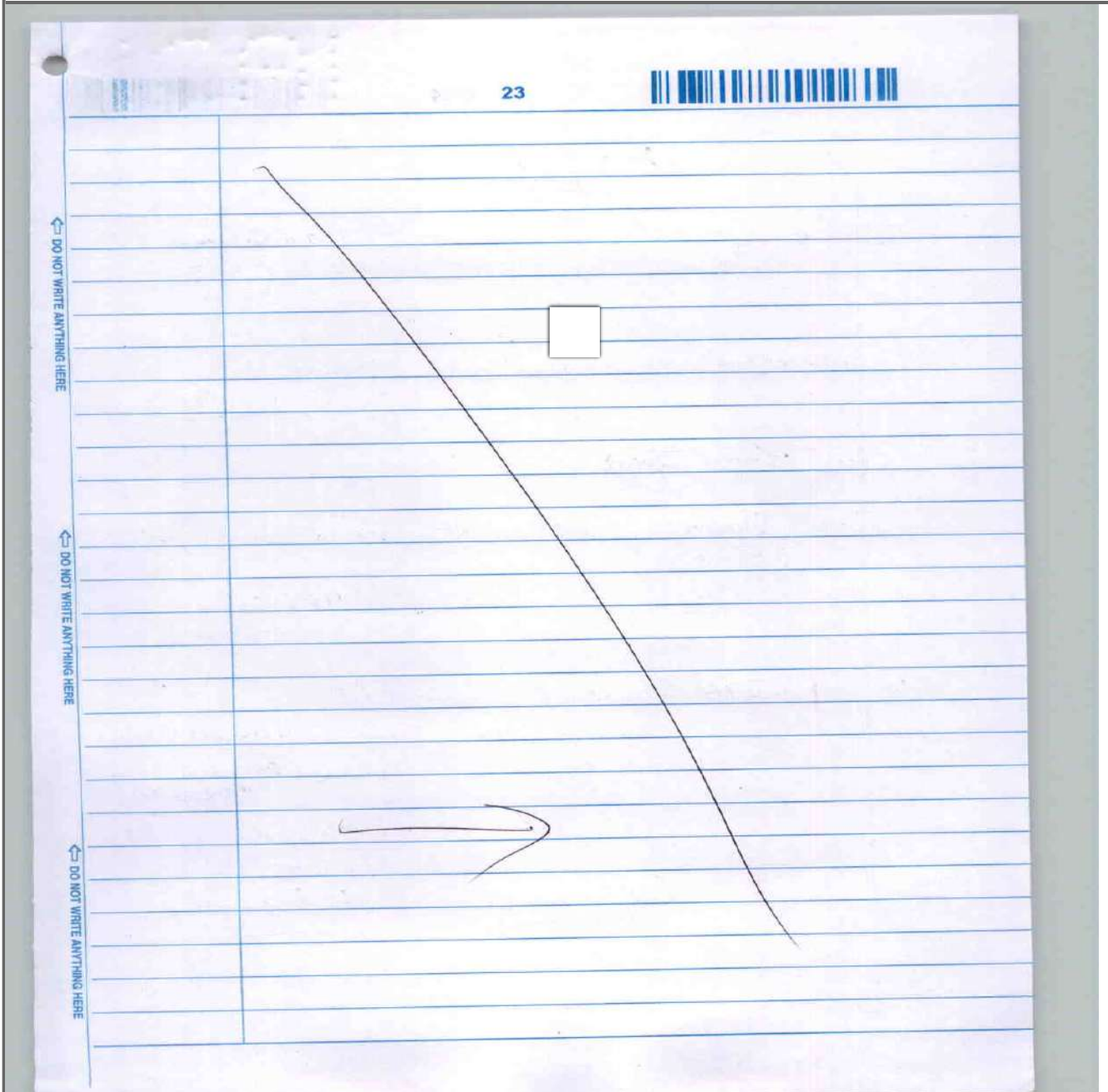
5a



The Institute of Chartered Accountants of India

Code: IN3CM419078
Subject : 03 Cost and Management Accounting

Total Marks: 100
Marks Obtained : 95





The Institute of Chartered Accountants of India

Code: IN3CM419078
Subject: 03 Cost and Management Accounting

Total Marks: 100
Marks Obtained: 95

24



Ans (56)

(1) Budgeted Variable O/H = 1,06,080 ₹
Budgeted Fixed O/H = 2,21,000 ₹

(2) Actual Prodⁿ expressed in standard
units = 8,800 hours

(3) ~~Total hours~~

(3) Standard Hours = $(52 \times 25 \times 8) \times 85\%$
(Budgeted)
= 8,540 hours

(4) ~~Variable~~ Standard Variable O/H
Per hour = $\frac{\text{Budgeted O/H}}{(\text{Budgeted}) \text{ Standard Hours (Actual Prodⁿ)}}$
= $\frac{1,06,080}{8,540}$
S R of Variable = 12 ₹ per hour

DO NOT WRITE ANYTHING HERE

DO NOT WRITE ANYTHING HERE

DO NOT WRITE ANYTHING HERE



The Institute of Chartered Accountants of India

Code: IN3CM419078
Subject: 03 Cost and Management Accounting

Total Marks: 100
Marks Obtained: 95

25



(5.) Standard Fixed O/H rate per hour

$$\begin{aligned} &= \frac{\text{Budgeted F/O}}{(\text{Budgeted}) \text{ hours}} \\ &= \frac{221,000}{8,840} \end{aligned}$$

$$\text{SR for fixed O/H} = \boxed{25 \text{ ₹ per hour}}$$

(i) Variable O/H Variances:

(a) Variable O/H exp variance =

$$\begin{aligned} &\text{SR} [SH - AH] \\ &AH [SR - AR] \\ &= 8,100 [12 - \frac{1,02,000}{8,100}] \end{aligned}$$

4 5bStep1

$$= \boxed{4,800 (A)} \quad \square$$

$$\begin{aligned} (b) \text{ Variable O/H efficiency} &= SR [SH - AH] \\ &= 12 [8,800 - 8,100] \\ &= \boxed{8,400 (F)} \quad \square \end{aligned}$$



The Institute of Chartered Accountants of India

Code: IN3CM419078
Subject: 03 Cost and Management Accounting

Total Marks: 100
Marks Obtained: 95

26



P/O Variances

(a) FO Budget Variance = $\text{Standard Price} \times \text{Standard Quantity} - \text{Actual Price} \times \text{Actual Quantity}$
 $= (8.80 \times 25) - 2.09 \times 25$
 $= 220.00 - 2.09 \times 25$
 $= 2900 (F)$

(b) FO Capacity Variance = $SR [AH - BH]$
 $= 25 [8.10 - 8.84]$
 $= 18.500 (A)$



5bStep2

(c) FO efficiency = $SR [SH - AH]$
 $= 25 [8.80 - 8.10]$
 $= 17.500 (F)$

DO NOT WRITE ANYTHING HERE

DO NOT WRITE ANYTHING HERE

DO NOT WRITE ANYTHING HERE

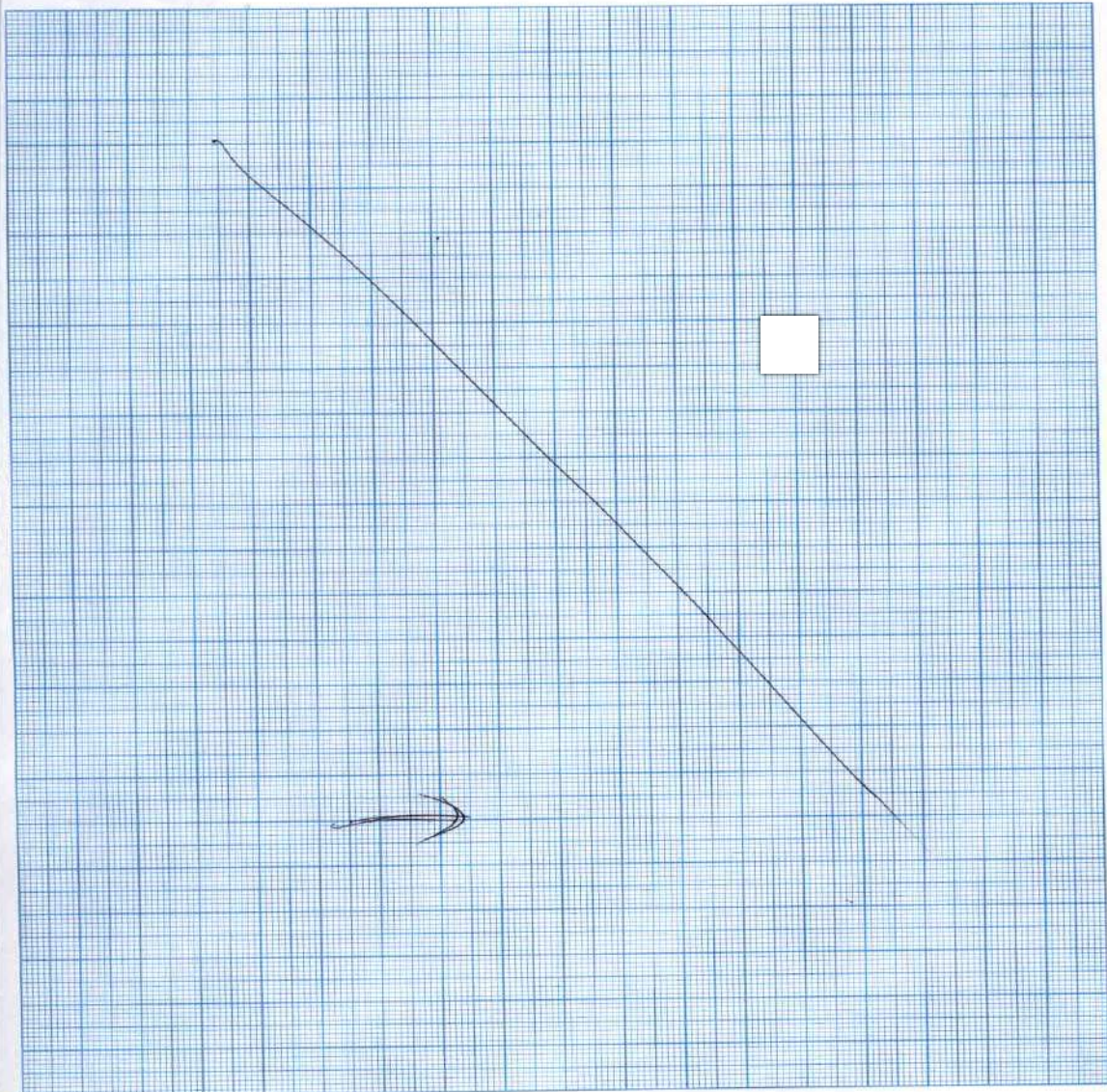


The Institute of Chartered Accountants of India

Code: IN3CM419078
Subject : 03 Cost and Management Accounting

Total Marks: 100
Marks Obtained : 95

27





The Institute of Chartered Accountants of India

Code: IN3CM419078
Subject: 03 Cost and Management Accounting

Total Marks: 100
Marks Obtained: 95

28



(iii) ~~Activity Ratio~~ ~~Ratio~~ ~~Variance~~ = ~~Standard Hours~~ ~~× 100~~
~~Actual Hours~~ ~~× 100~~ = ~~8,800~~ ~~× 100~~ = ~~99.54%~~
~~8,840~~

(b) Efficiency Ratio = $\frac{\text{Standard Hours} \times 100}{\text{Actual Hours}}$
 $= \frac{8,800 \times 100}{8,100}$
 $= 108.64\%$

(c) ~~Activity Ratio~~ =

(a) Capacity Ratio = $\frac{\text{Actual Hours} \times 100}{\text{Budgeted Hours}}$
 $= \frac{8,100 \times 100}{8,340} = 97.62\%$

(c) Activity Ratio = $\frac{\text{Budgeted Standard Hours} \times 100}{\text{Budgeted Hours}}$
 $= \frac{8,800 \times 100}{8,840} = 99.54\%$

3 5bStep3

9 5b

17 Q5



The Institute of Chartered Accountants of India

Code: IN3CM419078
Subject : 03 Cost and Management Accounting

Total Marks: 100
Marks Obtained : 95

Barcode

Addl. Book No. 47

THE INSTITUTE OF CHARTERED ACCOUNTANTS OF INDIA
ADDL. BOOK

DO NOT WRITE ROLL NUMBER ANYWHERE IN THIS
ADDITIONAL ANSWER BOOK

DO NOT WRITE ANYTHING HERE

~~Ans: (46) (46)~~
Ans: (16)

(A) Effectiveness Machine hours :-

Normal Available hours	208
(-) Absent	(13)
(-) leave	(20)
(-) Normal idle time	(10)
effective hours for operators	160 hours

total effective hours = $160 \times 6 \times 6$
= 5,760 hours

DO NOT WRITE ANYTHING HERE

DO NOT WRITE ANYTHING HERE



The Institute of Chartered Accountants of India

Code: IN3CM419078
Subject: 03 Cost and Management Accounting

Total Marks: 100
Marks Obtained: 95

2

(2) Wages

Normal	208
(-) Absent	(18)
(0)	<u>190 hours</u>

~~total wages =~~ $190 \times 6 \times 100$

total time for 6 operators = 1,140 hours for month

total for 6 operators 6 months

1bStep1 $= 1,140 \times 60$

$= 6,840 \text{ hours}$

Wages = $\frac{6,840 \times 100}{8} = 85,500 \text{ ₹}$

Bonus = 10% = $8,550 \text{ ₹}$

Machine Hour Rate

Power	40,200
Wages	85,500
Bonus	8,550
Super	16,500
Light & Cl.	6,000
Linen (1/2)	18,000
Sundry work (1/2)	2,000
Maint.	2,50,000
Rep. $(32,000 \times 10\% \times \frac{1}{2})$	1,60,000



The Institute of Chartered Accountants of India

Code: IN3CM419078
Subject : 03 Cost and Management Accounting

Total Marks: 100
Marks Obtained : 95

3



Rem $(32,00,000 \times 5\frac{1}{2}\%)$ Total expenses Total effective cost	8,96,000 8,51,800 5,76,000 147.88% <i>[Signature]</i>
---	--

4 1bStep2 Machine per Rate =

5 1b





The Institute of Chartered Accountants of India

Code: IN3CM419078
Subject : 03 Cost and Management Accounting

Total Marks: 100
Marks Obtained : 95

[illegible]



The Institute of Chartered Accountants of India

Code: IN3CM419078
Subject: 03 Cost and Management Accounting

Total Marks: 100
Marks Obtained: 95

Barcode: [Barcode]

Addl. Book No. 2

THE INSTITUTE OF CHARTERED ACCOUNTANTS OF INDIA
ADDL. BOOK

DO NOT WRITE ROLL NUMBER ANYWHERE IN THIS
ADDITIONAL ANSWER BOOK

Ans (1 d.)

(i) Total demand = 40 million
Market Share = 2.5%

Production required = $4,00,00,000 \times 2.5\%$
 $= 10,00,000 \text{ units}$

Set ~~up~~ cost = 225 ₹

Carrying cost per unit per $\text{₹} = 1.5 \times 1$
 $= 1.5 \text{ ₹}$

(ii) Optimum run size = $\sqrt{\frac{2 \times D \times C}{C}}$
 $= \sqrt{\frac{2 \times 10,00,000 \times 225}{1.5}}$
 $= 5,000 \text{ units}$



The Institute of Chartered Accountants of India

Code: IN3CM419078
Subject: 03 Cost and Management Accounting

Total Marks: 100
Marks Obtained: 95

2

(i) Minimum inventory holding cost =

$$= \frac{\text{Optimum run} \times 18}{2}$$

2 1dStep1 $= \frac{5,000 \times 18}{2}$

$$= 45,000 \text{ ₹}$$

(ii)

	4,000 units	5,000 units
Stock costs	$\frac{10,000 \times 25}{4,000} = 56,250$	$\frac{10,000 \times 25}{5,000} = 45,000$
Carrying	$\frac{4,000 \times 18}{2} = 36,000$	$\frac{5,000 \times 18}{2} = 45,000$
1dStep2	92,250	90,000 ₹
Ans.	$92,250 - 90,000 = 2,250 \text{ ₹ extra}$ which is increased	

5 1d



The Institute of Chartered Accountants of India

Code: IN3CM419078
Subject : 03 Cost and Management Accounting

Total Marks: 100
Marks Obtained : 95

3

DO NOT WRITE ANYTHING HERE

DO NOT WRITE ANYTHING HERE

DO NOT WRITE ANYTHING HERE



The Institute of Chartered Accountants of India

Code: IN3CM419078
Subject : 03 Cost and Management Accounting

Total Marks: 100
Marks Obtained : 95

4

DO NOT WRITE ANYTHING HERE

DO NOT WRITE ANYTHING HERE

DO NOT WRITE ANYTHING HERE



The Institute of Chartered Accountants of India

Code: IN3CM419078
Subject : 03 Cost and Management Accounting

Total Marks: 100
Marks Obtained : 95

Barcode: [Barcode]

CHARtered ACCOUNTANTS OF INDIA
JUNE 2021

Addl. Book No. 3

THE INSTITUTE OF CHARTERED ACCOUNTANTS OF INDIA
ADDL. BOOK

DO NOT WRITE ROLL NUMBER ANYWHERE IN THIS
ADDITIONAL ANSWER BOOK

DO NOT WRITE ANYTHING HERE

Ques. (46)

(1) Total labour hours

Particulars	X	Y	Z	Total
Production	1,200	1,440	1,968	
Direct labour (Hrs per unit)	18	20	30	
Total P.L. (Hrs)	21,600	28,800	59,040	1,09,440
O.L. Rate	₹21	₹4	₹4	₹4 per hour
Direct labour hours				
~~Production hours~~	5,400	7,200	14,260	27,360
hours	hours	hours	hours	hours

DO NOT WRITE ANYTHING HERE



The Institute of Chartered Accountants of India

Code: IN3CM419078
Subject: 03 Cost and Management Accounting

Total Marks: 100
Marks Obtained: 95

2

(1) Absorption

total overheads = 50,000
42,000
~~1,26,240~~
1,26,000
2,46,240 ₹

Direct labor hours = 27,360 hrs

Product's O/H absorption rate
= ₹ 9 per hour

Particulars	X	Y	Z	Total
Direct Mat	~~170~~ 90	84	176	—
Direct labor	18	20	30	—
O/H	40.5 (5,400 × 9) res	45 (720 × 9) 1440	675 (14,760 × 9) 1980	—
Total Cost	148.5	149	273.5	—

4bStep1



The Institute of Chartered Accountants of India

Code: IN3CM419078
Subject: 03 Cost and Management Accounting

Total Marks: 100
Marks Obtained: 95

3

Q.1	<u>ABC</u>		
Particulars	O/H	Cost Driver	Cost Driver Rate
Machinery	50,000	75	666.67
Set up	40,000	96	416.67
Overhead	28,240	96	294.16
Material	1,76,000	6,400	20

☐

	X	Y	Z	Cost
	1,200	1,440	1,280	
Production	25	30	41	96
Transportation	25	30	41	96
Material	1600	1600	3200	6400



The Institute of Chartered Accountants of India

Code: IN3CM419078
Subject : 03 Cost and Management Accounting

Total Marks: 100
Marks Obtained : 95

4

ABC overheads

	X	Y	Z	Total
Material P/B	16667	16667	16666	50000
Setup	10417	12500	17083	40000
Quality	~~22517351~~	8825	12061	28240
4bStep2	32000	32000	64000	128000
	66436	69992	109810	246240
Units	1200	1440	1760	
OBH/unit	55.365	48.60	55.79	

Cost Per Unit

Per	X	Y	Z
Material	90	84	176
Lab	18	20	30
O/H	55.365	48.60	55.79
	163.365	152.60	261.79
2bStep3			

10 4b 20 Q4



The Institute of Chartered Accountants of India

Code: IN3CM419078
Subject: 03 Cost and Management Accounting

Total Marks: 100
Marks Obtained: 95



Addl. Book No. 4

THE INSTITUTE OF CHARTERED ACCOUNTANTS OF INDIA
ADDL. BOOK

DO NOT WRITE ROLL NUMBER ANYWHERE IN THIS
ADDITIONAL ANSWER BOOK

Ans (a)

$$\text{Sales} = 120000 \text{ ₹}$$

$$\text{Contribution / Sales} = \text{PV Ratio} = 37\%$$

$$\Rightarrow \text{Contribution} = \underline{370,000 \text{ ₹}}$$

$$\Rightarrow \text{Margin of Safety} = 120000 \times 25\% \\ = \underline{250,000 \text{ ₹}}$$

$$\Rightarrow \text{RFP} = 1200,000 - 250,000 \\ = \underline{750,000 \text{ ₹}}$$

$$\rightarrow \text{Fixed Cost} = \text{RFP} \times \text{PV Ratio} \\ = 750,000 \times 37\% \\ = \underline{277,500 \text{ ₹}}$$

$$\rightarrow \text{Variable Cost} = \cancel{370000} / 0.6 - 3.76 \\ = \underline{6,39000 \text{ ₹}}$$

2 1aStep1



The Institute of Chartered Accountants of India

Code: IN3CM419078
Subject: 03 Cost and Management Accounting

Total Marks: 100
Marks Obtained: 95

2

Revised Contribution to Sales = 30%
Revised Variable Cost to Sales = 70%

~~Thus, Sales = 6,39,000~~
Variable Cost will remain same.

Variable Cost / VC to Sales Ratio

⇒ Sales = $\frac{6,39,000}{70\%}$
 $= 9,09,000 ₹$

⇒ Margin of Safety = $9,09,000 \times 40\%$
 $= 3,69,000 ₹$

⇒ BEP Sales = Sales - Mas
 $= 9,09,000 - 3,69,000$
 $= 5,49,000 ₹$

(i) Revised FC = BEP Sales $\times$ P.V. Ratio
 $= 5,49,000 \times 30\%$
 $= 1,62,000 ₹$

(ii) Revised Sales = (Working Note)
 $= \frac{6,39,000 \text{ VC}}{70\%}$
 $= \frac{6,39,000}{70\%} = 9,09,000 ₹$



The Institute of Chartered Accountants of India

Code: IN3CM419078
Subject : 03 Cost and Management Accounting

Total Marks: 100
Marks Obtained : 95

3

Barcode

(iii) BEP Point = Sales - Mos
= 9,000 - 3,600
= 5,400 ₹

3 1aStep2

5 1a

19 Q1

DO NOT WRITE ANYTHING HERE

DO NOT WRITE ANYTHING HERE

DO NOT WRITE ANYTHING HERE



The Institute of Chartered Accountants of India

Code: IN3CM419078
Subject : 03 Cost and Management Accounting

Total Marks: 100
Marks Obtained : 95

