Our Rankers

AIR 5

669/800
★★★

Sarthak Aggarwal
CA Inter May-23

AIR 19

629/800
★★★

Aman Mahajan
CA Inter Dec-21

AIR 33

610/800
★★★

Sundar B
CA Inter Dec-21

AIR 49

542/800
★★★

Ria Gupta
CA Inter May-22

What Our Students have to Say....

Aman Mahajan (CA AIR 19)

I really liked your classes, especially the practical linkages explained with amazing graphics. The full subject test serieshelped a lot in improving my writing speed and presentation skills.

Sundar Sri Renganathan B (AIR 33)

I took Accounting from IndigoLearn and the classes were really good. They emphasized on conceptual clarity over getting things done quickly, which is really vital to score good marks in practical papers. Other resources like Notes, Quizzes and Forum was beneficial too.

Dwarakesh

Thank you IndigoLearn team for the guidance and support throughout the past few months. I had great conceptual clarity in all the subjects and the revision classes by Suraj Sir were very helpful. Study planner and Free resources were very useful. Thank you Team IndigoLearn.

Yug Manoj Kumar Bhattad

I have cleared my CA Foundation examination with the total of 286. And this was not possible without the efforts and support of IndigoLearn. The way of teaching with utmost conceptual clarity is the best thing at Indigolearn.

Prakash Bhatt

Superb, one stop solution for All CA and Accountancy students they serve real Education at very very reasonable price

Naveen Kumar S

Good experience, unlimited views helped a lot in last one month preparation. Looking forward for

Bhagyasree Chougule

It was only because of Indigolearn that my concepts became very clear, and I was able to crack the exam. I wasn't 100% prepared I needed more practice but luckily I got through. I'm definitely choosing IndigoLearn for group 2 preparation. A big thanks!

Mohd Thayyab

Theoretical subjects made easier through story based examples and charts. Concept clarity 100%. Fully exam+practical oriented classes will help not only to retain the concepts during exams but for the longer duration.

Lalit Chetan Sanpal

Indigolearn has been fantastic and brilliant. Helped me alot in my preparations. I cleared both the groups in first attempt with your brilliant classes and notes. Thanks to all the faculties, coordinators, forum admins and everyone at Indigolearn. Really grateful. Will go for CA Finals at Indigolearn For sure. Thank you so much Indigolearn.

#StudentFirst

Abishek M

I'd like to thank IndigoLearn for all the support they've provided me with. Modules were great. They were time saving and straight to the point. I extensively used the materials provided before exams, they were so helpful. Also I'd appreciate them for providing unlimited views as I kept looking into the maths modules till the end.

Munnur Nandini Sree

Accounting classes I have taken from IndigoLearn. Now I feel that it's a great choice that I have made (after seeing my result) because only in Accounting I got exemption. Thank you IndigoLearn.

Harshita G

Thank u so much IndigoLearn for your guidance. This is only possible because of u people.... For my finals also my journey will continue with IndigoLearn.

Bharathsha PS

I purchased Economics, IT, FM, EIS and Audit from Indigolearn. All your classes are superb and anyone can easily crack the CA exams. What makes u special is your classes help us to understand the concepts very well.Special thanks to the FM faculty, I studied only 2 chapters in economics,and still managed to score excemption in the 8th paper.

Nayi Mihir kumar

This platform is very helpful in all activity like mcq practise, notes, teaching activities, revisions and the forum interaction with all students which I like the most. If anybody want to clear their exams in first attempt then IndigoLearn is the best platform for them. My all regards to IndigoLearn. Thank you so much.

Rajalaxmi CA Inter

Can't believe I cleared.Sathya Sir, Suraj Sir, Yogita Mam ... thanks to all my faculties. Basically an Eng student with zero accounts knowledge. Thanks IndigoLearn for making me clear in first attempt.

Priyanka Udeshi

All the faculties have excellent knowledge of the subject and deliver it in very crisp & effective manner. Also, quick response at Forums never let any of my doubts go unresolved no matter how small they were. Thank you once again to all the teachers & staff at IndigoLearn!

Naveen Kumar T

It been a great journey with indigo learn team. Thanks to all the facilities and forum friends who support me a lot.

COST AND MANAGEMENT ACCOUNTING

CASE SCENARIO 1

Litto Ltd. is a manufacturing company which has a machine shop cost centre that contains three machines of equal capacities. To operate these three machines nine operators are required i.e. three operators on each machine. Operators are paid Rs. 20 per hour. The factory works for fourty eight hours in a week which includes 4 hours set up time. The work is jointly done by operators. The operators are paid fully for the fourty eight hours. In additions they are paid a bonus of 10 per cent of productive time. Costs are reported for this company on the basis of thirteen four-weekly period.

The company for the purpose of computing machine hour rate includes the direct wages of the operator and also recoups the factory overheads allocated to the machines. The following details of factory overheads applicable to the cost centre are available:

· Depreciation 10% per annum on original cost of the machine. Original cost of each machine
is Rs.52,000.

· Maintenance and repair per week per machine is Rs.60. ·Consumable stores per week per machine are Rs.75.

·Power:20 units per hour per machine at the rate of 80 paise per unit. No power is used
during the set-up hours.

Apportionment to the cost centre: Rent per annum Rs.5,400, Heat and Light per annum
Rs.9,720, foreman's salary per annum Rs.12,960 and other miscellaneous expenditure per
annum Rs.18,000

Question:1
i. What is the effective machine hour for four-week period?
   a) 170 hours
   b) 176 hours
   c) 189 hours
   d) 192 hours
Feedback: Effective Machine hour for four-week period
-Total working hours - unproductive set-up time
=((48 hours x 4 weeks) -((4 hours ×4 weeks)}
=(192-16 hours) =176 hours.

Question:2
What is the bonus charges and power expenses for four-week period?
   a) Rs.1,056 and Rs.2,816

b) Rs.1,562 and Rs.3,560

c) Rs.1,240 and Rs.3,325

d) Rs.860 and Rs.2,450

Feedback:

		(Rs.)	(Rs.)
(A)	Standing Charges (per annum)		
	Rent	5,400	
	Heat and light	9,720	
	Foreman's salary	12,960	
	Other miscellaneous expenditure	18,000	
	Standing charges (per annum)	46,080	
	Total expenses for one machine for four week period		1,181.54
	Wages (48 hrs X 4 weeks X Rs.20 X 3 operators		11,520.00
	Bonus (176 hrs X Rs.20 X 3 operators) X 10%		1,056.00
	Total standing charges		13,757.54
(B)	Machine Expenses		
	Depreciation		400.00
	Repairs and maintenance (Rs.60 X 4 weeks)		240.00
	Consumable stores (Rs.75 X 4 Weeks)		300.00
	Power (176 hrs X 20 units X Rs.0.80)		2,816.00
	Total machine expenses		3,756.00
(C)	Total Expenses		17,513.54

Question:3

i. What is the standing charges for four-week period?

a) Rs. 12,357

b) Rs.10,450

c) Rs.13,757

d) Rs.14,226

Feedback:

		(Rs.)	(Rs.)
(A)	Standing Charges (per annum)		
	Rent	5,400	
	Heat and light	9,720	
	Foreman's salary	12,960	
	Other miscellaneous expenditure	18,000	
	Standing charges (per annum)	46,080	
	Total expenses for one machine for four week period		1,181.54
	Wages (48 hrs X 4 weeks X Rs.20 X 3 operators		11,520.00
	Bonus (176 hrs X Rs.20 X 3 operators) X 10%		1,056.00
	Total standing charges		13,757.54

Question: 4

i. What is the machine expenses for four-week period?

    a) Rs.2,500
    b) Rs.3,450
    c) Rs.3.986
    d) Rs.3,756

Feedback:

Machine Expenses		
Depreciation		400.00
Repairs and maintenance (Rs.60 X 4 weeks)		240.00
Consumable stores (Rs.75 X 4 Weeks)		300.00
Power (176 hrs X 20 units X Rs.0.80)		2,816.00
Total machine expenses		3,756.00

Question:5

What is the machine hour rate?

    a) Rs.99.51
    b) Rs.92.25
    c) Rs.105.22
    d) Rs.86.90

CASE SCENARIO 2

Arnav Ltd. operates in beverages industry where it manufactures soft-drink in three sizes of Large (3 litres), Medium (1.5 litres) and Small (600 ml) bottles. The products are processed in batches. The 5,000 litres capacity processing plant consumes electricity of 90 Kilowatts per hour and a batch takes 1 hour 45 minutes to complete. Only symmetric size of products can be processed at a time. The machine set-up takes 15 minutes to get ready for next batch processing. During the set-up power consumption is only 20%.

(i) The current price of Large, Medium and Small are '150,'90 and '50 respectively.

(ii) To produce a litre of beverage, 14 litres of raw material-W and 25 ml of Material-C are required which costs '0.50 and '1,000 per litre respectively.

(iii) 20 direct workers are required. The workers are paid 880 for 8 hours shift of work.

(iv) The average packing cost per bottle is '3

(V)Power cost is '7 per Kilowatt -hour (Kwh)

(vi) Other variable cost is'30,000 per batch.

(vii) Fixed cost (Administration and marketing) is '4,90,00,000.

(vii) The holding cost is '1 per bottle per annum.

The marketing team has surveyed the following demand (bottle) of the product:

Large	Medium	Small
3,00,000	7,50,000	20,00,000

The following information has been sought from you for the purpose of performance review meeting

Question: 1
Number of large size bottles that can be processed in a batch?
    a) 5,000 bottles
    b) 1,666 bottles
    c) 3,333 bottles
    d) 8,333 bottles
Feedback: Maximum number of bottles that can be processed in a batch:
 5,000 ltrs
Bottle volume
=5000/3=1,666 bottles

Question: 2
Total number of batches to be run to process medium size bottles
    a) 180
    b) **225**
    c) 240
    d) 645
Feedback:
No of batches to be run

		Large	Medium	Small	Total
A	Demand	3,00,000	7,50,000	20,00,000	
B	Bottles per batch (Refer WN-1)	1,666	3,333	8,333	
C	No of batches A/B	180	225	240	645

Question: 3
Material -W required for small size bottles
    a) 1,26,00,000 ltrs
    b) 1,68,00,000 ltrs
    c) 1,57,50,000 ltrs
    d) 1,51,50,000 ltrs
Feedback:

	Particulars	Large	Medium	Small	Total
A	Demand	3,00,000	7,50,000	20,00,000	
B	Qty per bottle (Litre)	3	1.5	0.6	
C	Output (Litre) [A X B]	9,00,000	11,25,000	12,00,000	32,25,000
D	Material-W per litre of output (Litre)	14	14	14	
E	Material-W required (Litre) [C X D]	1,26,00,000	1,57,50,000	1,68,00,000	4,51,50,000

F	Material-C required per litre of output (ml)	25	25	25	
G	Material-C required (Litre) ([C X F] /1,000)	22,500	28,125	30,000	80,625

Question:4

Profit/loss per batch:

    a) 7,72,17,370

    b) 5,52,54,550

    c) **2,82,17,370**

    d) 4,50,25,225

Feedback:

1. No. of Man-shift required:

		Large	Medium	Small	Total
A	No. of batches	180	225	240	645
B	Hours required per batch (Hours)	2	2	2	
C	Total hours required (Hours) [A×B]	360	450	480	1,290
D	No. of shifts required [C÷8]	45	57	60	162
E	Total manshift [D×20 workers]	900	1,140	1,200	3,240

2. Power consumption in Kwh

		Large	Medium	Small	Total
For processing					
A	No. of batches	180	225	240	645
B	Hours required per batch (Hours)	1.75	1.75	1.75	1.75
C	Total hours required (Hours) [A×B]	315	393.75	420	1,128.75
D	Power consumption per hour	90	90	90	90
E	Power consumption in Kwh [C×D]	28,350	35,437.5	37,800	1,01,587.5
F	Per batch consumption (Kwh) [E÷A]	157.5	157.5	157.5	157.5

For set-up				
G Hours required per batch (Hours)	0.25	0.25	0.25	0.25
H Total hours required (Hours) [A×G]	45	56.25	60	161.25
I Power consumption per hour [20%×90]	18	18	18	18
J Power consumption in Kwh [H×I]	810	1,012.5	1,080	2,902.5
K Per batch consumption (Kwh) [J÷A]	4.5	4.5	4.5	4.5

Calculation of Profit/ loss per batch:

	Particulars	Large	Medium	Small	Total
A	Demand (bottle)	3,00,000	7,50,000	20,00,000	30,50,000
B	Price per bottle (`)	150	90	50	
C	Sales value (`) [A×B]	4,50,00,000	6,75,00,000	10,00,00,000	21,25,00,000
	Direct Material cost:				
E	Material-W (`) [Qty in WN-3 × ` 0.50]	63,00,000	78,75,000	84,00,000	2,25,75,000
F	Material-C (`) [Qty in WN-3 × `1,000]	2,25,00,000	2,81,25,000	3,00,00,000	8,06,25,000
G	[E+F]	2,88,00,000	3,60,00,000	3,84,00,000	10,32,00,000
H	Direct Wages (`) [Man-shift in WN-4 × × ` 880]	7,92,000	10,03,200	10,56,000	28,51,200
I	Packing cost (`) [A×`3]	9,00,000	22,50,000	60,00,000	91,50,000

	Power cost (`)				
J	For processing (`) [WN-5 × `7]	1,98,450	2,48,062.5	2,64,600	7,11,112.5
K	For set-up time (`) [WN-5 × `7]	5,670	7,087.5	7,560	20,317.5
L	[J+K]	2,04,120	2,55,150	2,72,160	7,31,430
M	Other variable cost (`) [No. of batch in WN-2 × ` 30,000]	54,00,000	67,50,000	72,00,000	1,93,50,000
N	Total Variable cost per batch [G+H+I+L+M]	3,60,96,120	4,62,58,350	5,29,28,160	13,52,82,630
O	Profit/ loss before fixed cost [C-N]	89,03,880	2,12,41,650	4,70,71,840	7,72,17,370
P	Fixed Cost				4,90,00,000
Q	Total Profit [O-P]				2,82,17,370

Question:5.
What is the Economic Batch Quantity (EBQ) small bottles?
   a) 1,34,234 bottles
   b) 2,12,243 bottles
   c) 3,46,592 bottles
   d) 4,12,268 bottles
Feedback:

Computation of Economic Batch Quantity (EBQ):

EBQ = 2×D×SC

$$EBQ = \sqrt{\frac{2 \times D \times S}{C}}$$

D = Annual Demand for the Product = Refer A below

S = Set-up cost per batch = Refer D below

C = Carrying cost per unit per annum =Refer E below

	Particulars	Large	Medium	Small
A	Annual Demand (bottle)	3,00,000	7,50,000	20,00,000
	Set-up Cost:			
B	Power cost for set-up time (`) [Consumption per batch in WN-5 × `7]	31.50	31.50	31.50
C	Other variable cost (`) *	30,000	30,000	30,000
D	Total Set-up cost [B+C]	30,031.50	30,031.50	30,031.50
E	Holding cost:	1.00	1.00	1.00
F	EBQ (Bottle)	1,34,234	2,12,243	3,46,592

* Other variable cost is assumed to be part of set-up cost.

CASE SCENARIO 3

Service Costing

A LMV Pvt. Ltd, operates cab/ car rental service in Delhi/NCR. It provides its service to the offices of Noida, Gurugram and Faridabad. At present it operates CNG fuelled cars but it is also considering to upgrade these into Electric vehicle (EV). The following details related with the owning of CNG & EV propelled cars are as tabulated below:

Particulars CNG Car EV

Particulars	CNG Car	EV Car
Car purchase price (Rs.)	9,20,000	15,20,000
Govt. subsidy on purchase of car (Rs.)	–	1,50,000
Life of the car	15 years	10 years
Residual value (Rs.)	95,000	1,70,000
Mileage	20 km/kg	240 km per charge
Electricity consumption per full charge	–	30 Kwh
CNG cost per Kg (Rs.)	60	–
Power cost per Kwh (Rs.)	–	7.60
Annual Maintenance cost (Rs.)	8,000	5,200
Annual insurance cost (Rs.)	7,600	14,600
Tyre replacement cost in every 5 -year (Rs.)	16,000	16,000
Battery replacement cost in every 8-year (Rs.)	12,000	5,40,000

Apart from the above , the following are the additional information

Particulars	
Average distance covered by a car in a month	1,500 km
Driver's salary (Rs.)	20,000 p.m
Garage rent per car (Rs.)	4,500 p.m
Share of Office & Administration cost per car (Rs.)	1,500 p.m

You have been approached by the management of A LMV Pvt. Ltd. for consultation on the two options of operating the cab service. The expected questions that may be asked by the management are as follows:

Question:1
What would be the depreciable value of CNG Car and EV Car respectively?
  a) Rs.13,50,000 and Rs.14,40,000
  b) Rs.15,20,000 and Rs.8,25,000
  c) Ps.8,25,000 andRs.14,40,000
  d) Rs.8,25,000 and Rs.12,00,000
Feedback:

	Particulars	CNG Car	EV Car
A	Car purchase price (Rs.)	9,20,000	15,20,000
B	Less: Govt. subsidy (Rs.)	–	(1,50,000)
C	Less: Residual value (Rs.)	(95,000)	(1,70,000)
D	Depreciable value of car (Rs.) [A-B-C]	8,25,000	12,00,000
E	Life of the car	15 years	10 years
F	Annual depreciation (Rs.) [D÷E]	55,000	1,20,000
G	**Depreciation per month (Rs.) [F÷12]**	**4,583.33**	**10,000**

Question: 2

What would be the monthly cost of fuel and electricity for an CNG and EV car respectively?

    a) Rs.4,500 and Rs.1,425
    b) Rs.1,500 and Rs.4,500
    c) Rs.1,525 and Rs.1,450
    d) Rs.1,525 and Rs.1,425

Feedback:

	Particulars	CNG Car	EV Car
A	Average distance covered in a month (KM)	1,500	1,500
B	Mileage (KM)	20	240
C	Qty. of CNG/ Full charge required [A÷B]	75 kg.	6.25
D	Electricity Consumption [C×30kwh]	-	187.5
E	Cost of CNG per kg (Rs.)	60	-
F	Power cost per Kwh (Rs.)	-	7.60
G	**CNG Cost per month (Rs.) [C×E]**	**4,500**	-
H	**Power cost per month (Rs.) [D×F]**	-	**1,425**

Question: 3

What would be the total cost to be incurred for replacement of tyres for CNG and EV car respectively?

    a) Rs.32,000 and Rs.24,000
    b) Rs.12,000 and Rs.32,000
    c) Rs.32,000 and Rs.16,000
    d) Rs.16,000 and Rs.12,000

Feedback:

	Particulars	CNG Car	EV Car
A	Life of vehicle	15 years	10 years
B	Replacement interval	5 years	5 years
C	No. of time replacement required	2 times	1 time
D	Cost of tyres for each replacement (Rs.)	16,000	16,000
E	Total replacement cost (Rs.) [C×D]	32,000	16,000
F	Amortised cost per year (Rs.) [E÷A]	2,133.33	1,600
E	**Cost per month (Rs.) [F÷12]**	**177.78**	**133.33**

Question: 4
What would be the total cost to be incurred for replacement of battery for CNG and EV car respectively?

    a) Rs.5,40,000 and Rs.12,000
    b) Rs.12,000 and Rs.5,40,000
    c) Rs.2,00,000 and Rs. 12,000
    d) Rs.1,00,000 and Rs.2,00,000

Feedback:

	Particulars	CNG Car	EV Car
A	Life of vehicle	15 years	10 years
B	Replacement interval	8 years	8 years
C	No. of time replacement required	1 time	1 time
D	Cost of battery for each replacement (Rs.)	12,000	5,40,000
E	Total replacement cost (Rs.) [C×D]	12,000	5,40,000
F	Amortised cost per year (Rs.) [E÷A]	800	54,000
E	**Cost per month (Rs.) [F÷12]**	**66.67**	**4,500**

Question:5
What would be the operating cost of vehicle per month per car for both CNG & EV options?

    a) Rs.36,627.78 and Rs. 43,708.33
    b) Rs.36,627.78 and Rs. 48,523.26
    c) Rs. 48,523.26 and Rs. 28,510.29
    d) Rs. 48,523.26 and Rs. 28,510.29

Feedback:

	Particulars	CNG Car (Rs.)	EV Car (Rs.)
A	**Running cost:**		
	Fuel cost/ Power consumption cost [Refer WN-2]	4,500	1,425
B	**Maintenance cost:**		
	Annual Maintenance cost [Annual cost ÷12]	666.67	433.33
	Annual Insurance cost [Annual cost ÷12]	633.33	1,216.67
	Amortised cost of Tyre replacement [Refer WN-3]	177.78	133.33
	Amortised cost of Battery replacement [Refer WN-4]	66.67	4,500
		1,544.45	6,283.33
C	**Fixed cost:**		
	Depreciation [Refer WN-1]	4,583.33	10,000
	Driver's salary	20,000	20,000
	Garage rent	4,500	4,500
	Share of Office & Administration cost	1,500	1,500
		30,583.33	36,000
D	**Operating cost per month [A+B+C]**	**36,627.78**	**43,708.33**

CASE SCENARIO 4

Arnav Ltd. manufactures chemical solutions used in paint and adhesive products. Chemical solutions are produced in different processes. Some of the processes are hazardous in nature which may results in fire accidents.

At the end of the last month, one fire accident occurred in the factory. The fire destroyed some of the paper files containing records of the process operations for the month.

You being an associate to the Chief Manager (Finance), are assigned to prepare the process accounts for the month during which the fire occurred. From the documents and files of other sources, following information could be retrieved:

Opening work-in-process at the beginning of the month was 500 litres, 80% complete for labour and 60% complete for overheads. Opening work-in-process was valued at Rs.2,78,000.

Closing work-in-process at the end of the month was 100 litres,20% complete for labour and 10% complete for overheads.

Normal loss is 10% of input (fresh) and total losses during the month were 800 litres partly due to the fire damage

Output transferred to finished goods was 3,400 litres.
Losses have a scrap value of Rs.20 per litre.
All raw materials are added at the commencement of the process.
The cost per equivalent unit is Rs.660 for the month made up as follows:
Raw Material Rs.300
Labour Rs.200
Overheads Rs.160
The company uses FIFO method to value work-in-process and finished goods.
The following information are required for managerial decisions:

Question:1
How much quantity of raw material introduced during the month?
 a) 4,300 Litres
 b) 3,500 Litres
 c) 4,200 Litres
 d) 3,800 Litres
Feedback:

Inflow into process	Litres	Outflow from process	Litres
Opening WIP	500	Transferred to finished goods	3,400
Quantity introduced (Balancing figure)	3,800	Total loss	800
		Closing WIP	100
	4,300		4,300

Question: 2
The Quantity of normal loss.and abnormal loss are:
 a) Normal loss-380 litres & Abnormal loss-420 litres
 b) Normal loss- 350 litres & Abnormal loss -450 litres
 c) Normal loss 430 litres & Abnormal loss -370 litres
 d) Normal loss 420 litres & Abnormal loss -380 litres
Feedback:

Total Loss	800 litres
Normal Loss (10% of fresh input I.e., 3,800)	380 litres
Abnormal loss	420 litres

Question: 3
Value of raw material added to the process during the month is:
 a) Rs. 10,10,000
 b) Rs.10,33,600
 c) Rs.10,18,400
 d) Rs.10,20,000

Feedback:

Calculation of Equivalent production units

| Input Details | Units | Output Particulars | Units | Equivalent Production | | | | | |
| | | | | Material | | Labour | | Overheads | |
				%	Units	%	Units	%	Units
Opening WIP	500	From Opening WIP	500	-	-	20	100	40	200
Fresh inputs	3,800	From fresh units	2900	100	2900	100	2900	100	2900
		Normal loss	380	-		-		-	
		Closing WIP	100	100	100	20	20	10	10
		Abnormal loss	420	100	420	100	420	100	420
	4,300		4,300		3,420		3,440		3,530

Value of raw materials introduced during the month

	Equivalent units	Cost per EU (Rs.)	Total cost (Rs.)
Total value of raw material	3420	300	10,26,000
Add: Scrap value of normal loss	380	20	7,600
Value of raw material introduced			10,33,600

Question: 4
Value of labour and overhead in closing Work-in-process are:
  a) **Rs.4,000 & Rs.1,600 respectively**
  b) Rs.20,000 & Rs.16,000 respectively
  c) Rs.16,000 & Rs.9,000 respectively
  d) Rs. 13,200 & Rs.6,600 respectively
Feedback:
Value of labour and overhead in closing work in progress

Cost elements	Equivalent units	Cost per EU(Rs.)	Total Cost (Rs.)
Labour	20	200	4,000
Overheads	10	160	1,600

Question:5
Value of output transferred to finished goods is:
 a) Rs.22,57,200
 b) Rs.20,06,400
 c) Rs.22,44,000
 d) Rs.19,27,200
Feedback: Value of output transferred to finished goods
Output transferred (Units) × Equivalent cost per unit
3,400 Litres x Rs.660- Rs.22,44,000

CASE SCENARIO 6

A meeting of the heads of departments of the Arnav Ltd. has been called to review the operating performance of the company in the last financial year. The head of the production department appraised that during the last year the company could operate at 70% capacity level but in the coming financial year 95% capacity level can be achieved if an additional amount of Rs. 100 Crore on capex and working capital is incurred.

The head of the finance department has presented that during the last financial year the company had a P/V ratio of 40%, margin of safety and the break-even were Rs.50 crore and Rs.200 crore respectively.

To the reply to the proposal of increasing the production capacity level to 95%, the head of the finance department has informed that this could be achieved if the selling price and variable cost are reduced by 8% and 5% of sales respectively. Fixed cost will also increase by Rs.20 crore due to increased depreciation on additional assets. The additional capital will be arranged at a cost of 15% p.a. from a bank.

In the coming financial year, it has been aimed to achieve an additional profit of Rs. 10 crore over and above the last year's profit after adjusting the interest cost on the additional capital.

The following points is required to be calculated on urgent basis to put the same in the meeting. You being an assistant to the head of finance, has been asked the followings

Question:1
What will be the revised sales for the coming financial year?
 a) **Rs. 322.22 Crore**
 b) Rs. 311.11 Crore
 c) Rs. 300,00 Crore
 d) Rs.324.24 Crore
Feedback: Revised sale = {Rs. 115 +(20+10)} /45% = Rs. 322.22 crores

Question:2
What will be the revised break-even point for the coming financial year?
 a) Rs. 222.22 Crore

b) Rs. 252.22 Crore
c) Rs. 244.44 Crore
d) Rs. 255.56 Crore

Feedback:

Revised Break- even Point=

Rs.115 Crore ÷45% = Rs.255.56 Crore (Refer working notes

Working Note

Present Sales and Profit

Total Sales = Break- even Sales + Margin of Safety

= Rs. 200 Crores + Rs.50 Crores

= Rs. 250 Crores

P/V Ratio = 40%

Variable Cost = 60% of Sales

Rs. 250 Crores x 60%

= Rs. 150 Crores

Fixed Cost = Break-even Sales x P/V Ratio

= Rs. 200 Crores x40%

= Rs.80 Crores

Total Cost = Rs. 150 Crores+Rs. 80 Crores

=Rs.230 Crores

Profit = Total sales - Total cost

= Rs. 250Crores - Rs. 230 crores

= Rs. 20 crores

Revised sales

Present Fixed cost	80.00
Increase in fixed cost	20.00
Interest @ 15% on additional capital (100 cr X 15%)	15.00
Total Revised fixed cost (in crores)	115.00
Assuming that the present selling price is Rs.100	
Revised selling price will be (8% less)	92.00
New variable cost (Reduced from 60% to 55%) of sales (Rs.92 X 55%)	50.60
Contribution (Rs.92.00 – Rs.50.60)	41.40

New P/V Ratio = 45%

Question:3

What will be the revised margin of safety for the coming financial year?
a) Rs. 100 Crore
b) Rs.58.89 Crore
c) Rs.55.56 Crore
d) Rs. 66.66 Crore

Feedback :

Revised Margin of Safety= Revised Sales - Revised Break-even Sales

=Rs. 322.22Crores-Rs.255.56Crores =Rs.66.66 Crores.

Question:4
The profit of the last year and for the coming year are:
    a) Rs.50 Crore & Rs.95 Crore respectively
    b) Rs. 20 Crore & Rs.65 Crore respectively
    c) Rs.20 Crore & Rs. 30 Crore respectively
    d) Rs. 45 Crore & Rs. 66.66 Crore respectively
Feedback: Rs. 20 Crore & Rs.30 Crore respectively (Refer working note)
Working Note
Present Sales and Profit
Total Sales = Break - even Sales + Margin of Safety
=Rs. 200 Crores + Rs.50 Crores =Rs. 250 Crores

P/V Ratio = 40%
Variable Cost =   60% of Sales
=Rs.250 Crores x 60% = Rs. 150 Crores
Fixed Cost = Break-even Sales x P/V Ratio
=Rs. 200 Crores x 40% = Rs.8O Crores

Total Cost = Rs.150 Crores + Rs. 800 Crores
= Rs.230 Crores
Profit = Total Sales-Total Cost
= Rs.250 Crores-Rs.230 Crores = Rs.20 Cores

Question:5
The total cost of the last year and for the coming year are:
    a) Rs. 230 Crore & Rs.292.22
    b) Rs. 230 Crore & Rs.275 Crore
    c) Rs.220 Crore & Rs.282.22 Crore
    d) Rs.220 Crore &Rs.292 22 Crore
Feedback:
Total cost in last year = Rs.230 Crore
Total cost in coming year= Variable Cost + Fixed Cost
Revised sales x 55%+115 Crore
Rs.322.22 Crore x 55%+Rs. 115 Crore = Rs. 292.22 Crore

CASE SCENARIO 7
K Ltd. is a manufacturer of a single product A. 8,000 units of the product A has been produced in the month of March 2024. At the beginning of the year a total 1,20,000 units of the product-A has been planned for production. The cost department has provided the following estimates of overheads:

Fixed	Rs.12,00,000	Variable	Rs.6,00,000
Semi-variable	Rs. 1,80,000		

Semi-variable charges are considered to include 60 per cent expenses of fixed nature and 40 per cent of variable character.

The records of the production department shows that the company could have operated for 20 days but there was a festival holiday during the month.

The actual cost data for the month of March 2024 are as follows:

Fixed	Rs. 1,19,000	Variable	Rs. 48,000
Semi-variable	Rs. 19,200		

The cost department of the company is now preparing a cost variance report for managerial information and action. You being an accounts officer of the company are asked to calculate the following information for preparation of the variance report:

Question:1
What is the amount of variable overhead cost variance for the month of March 2024:
    a) Rs. 10,200 (A)
    b) Rs. 10,400 (A)
    c) Rs. 10,800 (A)
    d) Rs. 10,880 (A)
Feedback:
Variable Overhead Cost Variance = Standard Variable Overheads for Production-Actual Variable Overheads
= Rs. 44,800- Rs.55,680
=Rs. 10,880 (A)

Question:2
What is the amount of fixed overhead volume variance for the month of March 2024:
    a) Rs. 9,000 (F)
    b) Rs. 9,000 (A)
    c) Rs. 21,800 (A)
    d) Rs. 11,000 (A)
Feedback:
Fixed Overhead Volume Variance
= Absorbed Fixed Overheads - Budgeted Fixed Overheads
= Rs. 87,200- Rs. 1,09,000 =Rs. 21,800 (A)

Question: 3
What is the amount of fixed overhead expenditure variance for the month of March 2024:
    a) Rs. 21,520 (A)
    b) Rs. 21,500 (A)
    c) Rs. 21,400 (A)
    d) Rs. 21,480 (A)

Feedback:
Fixed Overhead Expenditure Variance = Budgeted Fixed Overheads - Actual Fixed Overheads
= Rs.10.9 × 10,000 units -Rs.1,30,520 =Rs. 21,520(A)

Question: 4
What is the amount of fixed overhead calendar variance for the month of March 2024:
   a) Rs. 5,400 (A)
   b) Rs. 5,450 (A)
   c) Rs. 5,480 (A)
   d) Rs.5.420 (A)
Feedback:
Calendar Variance = Possible Fixed Overheads - Budgeted Fixed Overheads
= Rs. 1,03,550-Rs. 1,09,000
=Rs. 5,450 (A)

Question: 5
What is the amount of fixed overhead cost variance for the month of March 2024:
   a) Rs. 43,320 (A)
   b) Rs. 43,300 (A)
   c) Rs. 43,200 (A)
   d) Rs.43,380 (A)
Feedback:
Fixed overhead Cost Variance = Absorbed Fixed Overheads - Actual Fixed Overheads
=Rs. 87,200- Rs.1,30,520
= Rs.43,320 (A)

CASE SCENARIO 8
The purchase committee of A Ltd. has been entrusted to review the material procurement policy of the company. The chief marketing manager has appraised the committee that the company at present produces a single product X by using two raw materials A and B in the ratio of 3:2. Material A is perishable in nature and has to be used within 10 days from Goods received note (GRN) date otherwise material becomes obsolete. Material B is durable in nature and can be used even after one year. Material A is purchased from the local market within 1 to 2 days of placing order. Material B, on the other hand, is purchased from neighbouring state and it takes 2 to 4 days to receive the material in the store.
The purchase price of per kilogram of raw material A and Bis Rs.30 and Rs.44 respectively exclusive of taxes. To place an order, the company has to incur an administrative cost of Rs.1,200. Carrying cost for Material A and Bis 15% and 5% respectively. At present material A is purchased in a lot of 15,000 kg. to avail 10% discount on market price. GST applicable for both the materials is 18% and the

input tax credit is availed.

The sales department has provided an estimate that the company could sell 30,000 kg. in January 2024 and also projected the same trend for the entire year
The ratio of input and output is 5:3. Company works for 25 days in a month and production is carried out evenly.

The following queries/ calculations to be kept ready for purchase committees' reference:

Question:1
For the month of January 2024, what would be the quantity of the materials to be requisitioned for both material A and B:

a) 9,000 kg &6,000 kg respectively
b) 18,000 kg & 12,000 kg respectively
c) 27,000 kg & 18,000 kg respectively
d) 30,000 kg & 20,000 kg respectively

Feedback:
Monthly Production of X= 30,000 kgs.
Raw Material Required=50,000 kgs.
Material A =30,000 kg.
Material B =20,000 kg.

Question: 2
The economic order quantity (EOQ) for both the material A & B:

a) 13,856 kg & 16,181 kg respectively
b) 16,197 kg & 17,327 kg respectively
c) 16,181 kg & 17,165 kg respectively
d) 13,197 kg & 17,165 kg respectively

Feedback:
Calculation of Economic order Quantity

Material A = $\sqrt{\dfrac{2\times(30.000 X 12) X 1,200}{15\%\ of\ 30}}$

= 13,856 kg

Material B= $\sqrt{\dfrac{2\times(20.000 X 12) X 1,200}{5\%\ of\ 44}}$

= 16,181kg.

Question:3
What would the maximum stock level for material A:

a) 18,200 kg.
b) 12,000 kg.
c) 16,000 kg.
d) 16,200 kg.

Feedback:
Calculation of Maximum Stock level: Since, the Material A is perishable in nature

and it required to be used within 10 days, hence, the Maximum Stock Level shall be lower of two:

(a) Stock equal to 10 days consumption

=30000/25x10 days

=12,000 kg.

(b) Maximum Stock Level for Material A:

Reorder Quantity + Re-order level-(Min consumption*x Min. lead time)

Where, Re-order Quantity =15,000 kg.

Re-order level =Max. Consumption*x Max. Lead time

30,000/25 × 2 days =2,400 kg.

Maximum stock Level = 15,000 kg.+2,400 kg.-(30,000/25 x1 day)

=17,400-1,200 =16,200 kg.

Stock required for 10 days consumption is lower than the maximum stock level calculated through the formula. Therefore, Maximum

Stock Level will be 12,000 kg.

(*Since, production is processed evenly throughout the month hence material consumption will also be even.)

Question: 4

Calculate saving/loss in purchase of Material A if the purchase order quantity is equal to EOQ.

   a) Profit of Rs. 3,21,201.
   b) **Loss of Rs.3,21,201.**
   c) Profit of Rs. 2,52,500
   d) Loss of Rs. 2,52,500

Feedback:

Calculation of Savings/ loss in Material A if purchase quantity equals to EOQ.

	Purchase Quantity = 15,000 kg.	Purchase Quantity = EOQ i.e. 13,856 kg.
Annual consumption	3,60,000 kg. (30,000 × 12 months)	3,60,000 kg. (30,000 × 12 months)
No. of orders [Note- (i)]	30 (3,60,000 ÷ 12,000)	30 (3,60,000 ÷ 12,000)
Ordering Cost (a)	Rs.36,000 (Rs.1200 × 30)	Rs.36,000 (Rs.1200 × 30)
Carrying Cost (b) [Note- (ii)]	Rs.30,375 (15% of Rs.27 × 7,500)	Rs.31,176 (15% of Rs.30 × 6,928)
Purchase Cost (c) (for good portion)	Rs.97,20,000 (Rs.27 × 3,60,000)	Rs.1,08,00,000 (Rs.30 × 3,60,000)
Loss due to obsolescence (d) [Note- (iii)]	Rs.24,30,000 [Rs.27 × (30 × 3,000)]	Rs.16,70,400 [Rs.30 × (30 × 1,856)]
Total Cost [(a) + (b) + (c) + (d)]	Rs. 1,22,16,375	Rs. 1,25,37,576

Purchasing of material-A at present policy of 15,000 kg. saves Rs. 3,21,201. Notes:
(i) Since, material gets obsolete after 10 days, the quantity in excess of 10 days consumption i.e. 12,000 kg. are wasted. Hence, after12,000 kg. a fresh order needs to be given.
(ii) Carrying cost is incurred on average stock of Materials purchased.
(iii)The excess quantity of material becomes obsolete and loss has to be incurred

Question: 5
What would the minimum stock level for material A:
   a) 1,800 kg.
   b) 1,200 kg.
   c) 600 kg.
   d) 2,400 kg
Feedback:
Minimum Stock Level for Material A
= Re-order level -(Average Consumption Rate x Average Re-order Period)
=2400 -(1200x1.5) = 600 kgs
Re-order level =Max. Consumption*x Max. Lead time
= 30,000/25×2 days = 2,400 kg.
Average Consumption Rate =(30,000/25 +30,000/25)/2

=1,200 Kg

Average Re-order Period = (1+2)/2 = 1.5 Days
Stock required for 10 days consumption is lower than the maximum stock level calculated through the formula. Therefore, Maximum Stock Level will be 12,000 kg.
(*Since, production is processed evenly throughout the month hence material consumption will also be even.)

CASE SCENARIO 9
The wages budget for the last period was based on a standard repair time of 30 minutes per unit and a standard wage rate of '50 per hour. The actual data for the last period are as follows:
Number of units -30,000
Labour rate variance -7,500 (A)
Labour efficiency variance - Nil

Question:1
From the information find out the actual rate of wages per unit
   a) Rs.50
   b) Rs.25.50
   c) Rs.50.50
   d) Rs.25.25
Feedback:
Labour rate variance = Standard time for actual production (SR-AR)
7,500 (A) = (30,000 x 30 minutes/60 minutes) ×(50-AR)
AR=(7,50,000+7,500)/15,000= Rs.50.50 per hour
Actual wages per unit =50.50/2=Rs.25.25

CASE SCENARIO 10
The following extract is taken from the overhead budget of X

Budgeted activity	50%	75%
Budgeted overhead (Rs)	30,00,000	40,00,000

Question:1
What would be the budgeted overhead for 60% level of activity:
   a) Rs.32,00,000
   b) Rs.34,00,000
   c) Rs.30,00,000
   d) Rs.36,00,000
Feedback:
Variable overhead for each % of level of activity=

$$\frac{40,00,000-30,00,000}{75-50}$$

=40,000
Fixed cost = 30,00,000-(40,000 x 50)=10,00,000
Total overheads for 60% level of activity
=10,00,000+(40,000×60)=34,00,000

CASE SCENARIO 11
Based on the data below, what is the amount of the overhead under-/over-absorbed?
Budgeted overhead   -Rs.5,25,000
Budgeted machine hours   - 17,500
Actual machine hours   - 17,040
Actual overheads   - Rs.5,20,000

Question:1
What is the amount of the overhead under-/over-absorbed?
   a) 5,000 under-absorbed
   b) 8,800 under-absorbed
   c) 8,800 over-absorbed
   d) 5,000 over-absorbed
Feedback:
Actual Overhead-(Actual machine hours x machine hour rate)
5,20,000-(17040 x 30) = 8,800 under absorbed

CASE SCENARIO 12
A customer has been ordering 80,000 caps during the year. It is estimated that it costs Rs.1 as inventory holding cost per cap per month and that the set up cost per run of cap manufacture is Rs.3,500

Question:'1
What is optimum run size of cap manufacture?
   a) **12 runs**
   b) 10 runs
   c) 15 runs
   d) 7 runs
Feedback:
Optimum batch size or Economic Batch Quantity (EBQ):
EBQ = 6,832 units.
Number of Optimum runs=80,000+6,832=11.70 or 12 run

CASE SCENARIO 13
If the amount of wages under Halsey plan is Rs. 420, total time allowed is 8 hours and the guaranteed time rate is Rs. 60 per hour.

Question:1

What is the total time saved by the worker?
  a) **2 hours**
  b) 3 hours
  c) 6 hours
  d) 3.5 hours
Feedback:
(TT x 60)+[0.50 x (8-TT) x 60]=420 TT*=6 hours
Time saved =8-6=2
* TT-Total Time Taken

CASE SCENARIO 14

From the following information, calculate the total cost of product A and B using the ABC analysis:

	Product A	Product B
Units	5,000	5,000
Number of purchase orders placed	100	220
Number of deliveries received	70	200
Ordering Cost	Rs. 4,00,000	
Delivery Cost	Rs. 1,35,000	

Question:1
Calculate the Total cost of Product A and B using the ABC analysis:
  a) A=Rs.47,500;B=Rs. 1,27,500
  b) A=Rs. 2,67,500; B=Rs. 2,67,500
  c) A=Rs.1,60,00;B=Rs.3,75,000
  d) A=Rs. 1,47,500;B=Rs. 1,47,500
Feedback:
Ordering Cost=4,00,000/320 =1,250
Delivery Cost=1,35,000/270=500
A=1,250 x 100+500 x 70=1,60,000
B = 1,250 x 220 + 500 x 200 = 3,75,000

CASE SCENARIO 15

What would be Prime cost from below information?
Direct materials Purchased : Rs. 75,000
Direct labour   : Rs. 45,000
Direct expenses   : Rs. 15,000
Manufacturing overheads   : Rs. 22,500
Direct materials consumed : Rs. 67,500

  Question:1
What would be Prime cost?
  a) Rs. 1,35,000

b) **Rs. 1,27,500**
c) Rs. 1,57,500
d) Rs. 1,50,000

Feedback:

Direct labour	Rs.45,000
Direct expenses	Rs. 15,000
Direct materials consumed	Rs.67,500
Prime Cost	Rs.1,27,500

CASE SCENARIO 16

The following data are available in respect of process-1 for January 2024

1. Opening stock of work in process: 600 units at a total cost of Rs.4,200
2. Degree of completion of opening work in process:
   Material   100%
   Labour   60%
   Overheads 60%
3. Input of materials at a total cost of Rs.55,200 for 9,200 units
4. Direct wages are incurred Rs.18,600
5. Overheads Rs.8,630
6. Units scrapped 200 units. The stage of completion of these units was
   Materials   100%
   Labour   80%
   Overheads   80%
7. Closing work in process: 700 units. The stage of completion of these units was:
   Materials   100%
   Labour   70%
   Overheads   70%
8. 8,900 units were completed and transferred to the next process
9. Normal loss is 4% of the total input (opening stock plus units put in)
10. Scrap value is Rs.6 per unit
    You are required to be ready with the following information

Question: 1
What is the equivalent units for labour?
a) 9,800 units
b) 8,808 units
c) 9,030 units
d) 8,838 units
Feedback:

Statement of Equivalent Production (FIFO Method)

Input		Output			Equivalent Production					
					Materials		Labour		Overheads	
Details	Units	Details	Units	%	Units	%	Units	%	Units	
Opening Stock	600	Finished goods transferred to next process:- from opening stock	600	-		40	240	40	240	
		- From fresh materials	8,300	100	8,300	100	8,300	100	8,300	
		Closing W-I-P	700	100	700	70	490	70	490	
Fresh inputs	9,200	Normal loss	392	-	-	-	-	-	-	
			9,992		9,000		9,030		9,030	
		Less: Abnormal Gain	(192)	100	(192)	100	(192)	100	(192)	
	9,800		9,800		8,808		8,838		8,838	

Question:2.

What is the total cost of per equivalent units?

    a) **Rs.9.08**
    b) Rs.10.10
    c) Rs.8.08
    d) Rs.8.68

Feedback:

Statement of Cost per equivalent units

Elements		Cost	Equivalent units	Cost per equivalent Unit
	(Rs.)	(Rs.)		(Rs.)
Material Cost	55,200			
Less: Scrap realisation	2,352	52,848	8,808	6.00
392 units @ Rs. 6/- p.u.				
Labour cost		18,600	8,838	2.10
Overheads		8,630	8,838	0.98
Total Cost		80,078		9.08

Question:3
What is the total cost of abnormal gain?
a) **Rs.1,743.36**
b) Rs.1,209.52
c) Rs.2,506.25
d) Rs.3,728.16
Feedback:

Cost of Abnormal Gain – 192 Units

	(Rs.)	(Rs.)
Material cost of 192 units @ Rs. 6.00/- p.u.	1,152.00	
Labour cost of 192 units @ Rs. 2.10/- p.u.	403.20	
Overheads of 192 units @ Rs. 0.98/- p.u.	188.16	1,743.36

Question:4
What is the total cost of closing work in process?
a) **Rs.5,709.20**
b) Rs.5,709.20
c) Rs.5,806.20
d) Rs.5,734.80
Feedback:

Cost of closing WIP — 700 Units

Material cost of 700 equivalent units @ Rs. 6.00/- p.u.	4,200.00	
Labour cost of 490 equivalent units @ Rs.2.10/- p.u.	1,029.00	
Overheads of 490 equivalent @ Rs. 0.98/- p.u.	480.20	5709.20

Question:5

What is the cost of the units to be transferred to the next process using the FIFO method?

  a) Rs.50,900.15
  b) **Rs.80,303.20**
  c) Rs.80,800.36
  d) Rs.50,300.80

Feedback:

Calculation of cost of 8,900 units transferred to next process		(Rs.)
(i) Cost of opening W-I-P Stock b/f — 600 units		4,200.00
(ii) Cost incurred on opening W-I-P stock		
Material cost	—	
Labour cost 240 equivalent units @ Rs. 2.10 p.u.	504.00	
Overheads 240 equivalent units @ Rs. 0.98/- p.u.	235.20	739.20
(iii) Cost of 8,300 completed units		
8,300 units @ Rs.9.08 p.u.		75,364.00
Total cost [(i) + (ii) + (iii))]		80,303.20

CASE SCENARIO 17

Miniso Pvt Ltd a company engaged in the business of manufacturing wireless Bluetooth earphones. The company wishes to track its operating profitability and the margin if needs to maintain to sustain profitability in the long run. Further the company has adopted the marginal costing technique to identify and define operational levels. In this regard the company has provided the following information for the current year:

Opening stock of earphones	30,000 units
Selling Price of the earphones	Rs.450 per unit
Variable costs incurred in manufacture	Rs.270 per unit
Units produced during the previous year	1,80,000 units
Expected production for the current year	2,25,000 units

Expected sales for the current year   2,40,000 units
Fixed cost per unit for last year was   Rs.60 per unit
Expected rise in Fixed Cost   10%
Expected Increase in Variable cost   25%
Based on the above information available, the following needs to be determined

Question: 1
The profit that the company will make on achieving its targeted sales amounts to:
    a) Rs.1,51,20,000
    b) Rs.1,62,00,000
    c) **Rs.1,71,45,000**
    d) Rs.1,72,00,000
Feedback:
Selling Price = 450
Less: Variable cost of Prior Year = 270
Contribution per unit prior year = 180

Variable cost for current year = 337.5
Contribution per unit = 112.5

Total Contribution =2,90,25,000 (30,000 x 180+2,10,000x 112.5)
Less: Fixed Cost =1,18,80,000(1,80,000 x 60x 110%)
Profit for the year =1,71,45,000

Question:2
The units to be sold by the company to achieve Break-even is:
    a) 57,600 units
    b) **87,600 units**
    c) 1,05,600 units
    d) 96,000 units
Feedback:
Contribution from Opening stock =54,00,000(30,000 x 180)
Balance fixed cost to be covered =64,80,000 (1,18,80,000-54,00,000)
Contribution per unit = 112.5
Units to be to be sold to break even = 57,600
Therefore total units for break even =30,000+57,600=87,600

Question: 3
The total fixed cost for the current year post the cost increase amounts to:
    a) Rs.1,08,00,000
    b) Rs.1,48,50,000
    c) **Rs.1,18,80,000**
    d) Rs 1,44,00,000
Feedback:

Fixed Cost =1,18,80,000 (1,80,000 x 60 x 110%)

Question: 4
The quantity of closing stock and its value amounts to:
    a) Closing stock in units -NIL and Value -NIL
    b) Closing stock in units -15,000 and Value-Rs.40,50,000
    c) Closing stock in units-15,000 and Value-Rs.50,62,500
    d) Closing stock in units-15,000 and Value-Rs. 58,05,000
Feedback:
Opening stock   -30,000
Add: Manufactured -2,25,000
Less: Sales   -(2,40,000)
Closing stock   -15,000
Cost per unit (VC only) -337.5
Closing stock   ·Rs.50,62,500

Question:5
Margin of Safety in units amounts to:
    a) 87,600 units
    b) 1,52,400 units
    c) 1,62,000 units
    d) 1,60,000 units
Feedback:
Margin of safety in units Profit/contribution per unit
=1,71,45,0 00/11 2.5
Margin of safety in units =1,52,400 units

CASE SCENARIO 18
PQR Ltd. has normal monthly machine hour capacity of 120 machines working 8 hours per day for 24 working days in a month. The budgeted fixed overhead is Rs.5,60,000.The actual production was 4,500 units. The actual fixed overhead was Rs. 5,75,000.

Question:1
Fixed overhead expenditure variance will be:
    a) 15,000 (A)
    b) 15,000 (F)
    c) 20,000(F)
    d) 20,000 (A)
Feedback:
Fixed overhead expenditure variance = Budgeted fixed overhead - Actual fixed overheads Fixed overhead expenditure variance=5,60,000-5,75,000= 15,000(A)

CASE SCENARIO 19

MNP Ltd manufactures three products with total production overheads of Rs. 22,00,000.The cost of production scheduling/machine set-ups is Rs. 10,00,000 for which cost driver is number of setups.

Details on the three products are as follows:

	L	M	M
Production(units)	10,000	15,000	20,000
Number of setups	140	160	200

Question:1

What is the charge out rate for production scheduling/machine set ups is?

    a) Rs. 1,500

    b) **Rs. 2,000**

    c) Rs. 500

    d) Rs.1,000

Feedback:

charge out rate for production scheduling/machine set ups is = Rs.2,000

CASE SCENARIO 20

The following data is available:

Labour turnover rates are 25%, 12% and 10% respectively under Flux method, Replacement method and Separation method. No. of workers replaced is 72.

Question:1

Calculate average workers on roll

    a) **600**

    b) 580

    c) 400

    d) 640

Feedback:

Labour turnover rate = Replacements/Average number of workers on roll

12/100=72/ Average number of workers on roll

Average number of workers on roll =600

CASE SCENARIO 21

The board of the J Ltd. has been appraised by the General Manager (HR) that the employee attrition rate in the company has increased. The following facts has been presented by the GM(HR):

(1)Training period of the new recruits is 50,000 hours. During this period their productivity is 60% of the experienced workers. Time required bv an experienced worker is 10 hours per unit

(2) 20% of the output during training period was defective. Cost of rectification of a defective unit was Rs. 25.

(3) Potential productive hours lost due to delay in recruitment were 1,00,000

hours.

(4) Selling price per unit is Rs. 180 and P/V ratio is 20%.

(5) Settlement cost of the workers leaving the organization was Rs. 1,83,480.

(6) Recruitment cost was Rs. 1,56,340

(7) Training cost was Rs. 1,13,180

You being an associate finance to GM(HR), has been asked the following questions

Question: 1

How much quantity of output is lost due to labour turnover?

a) 10,000 units
b) 8,000 units
c) 12,000 units
d) 12,600 units

Feedback:

Output by experienced workers in 50,000 hours = 5,000 units

Output by new. recruits =60% of 5,000-3,000 units

Loss of output =5,000-3,000-2,000 units

Total loss of output = Due to delay recruitment + Due to inexperience

=10,000+2,000=12,000 units

Question:-2

How much loss in the form of contribution, the company incurred due to labour turnover?

a) Rs.4,32,000
b) Rs.4,20,000
c) Rs. 4,36,000
d) Rs. 4,28,000

Feedback:

Contribution per unit = 20% of Rs. 180= Rs. 36

Total contribution lost - Rs. 36 x 12,000 units = Rs. 4,32,000

Question:3

What is the cost repairing of defective units?

a) Rs. 75,000
b) Rs. 15,000
c) Rs. 50,000
d) Rs. 25,000

Feedback:

Cost of repairing defective units =3,000 units x 0.2x Rs.25 =Rs. 15,000

Question:4

Calculate the profit lost by the company due to increased labour turnover.

a) Rs.7,50,000

b) Rs. 15,00,000
c) Rs. 5,00,000
d) Rs.9,00,000

Feedback:

Calculation of loss of profit due to labour turnover

	(Rs.)
Loss of Contribution	4,32,000
Cost of repairing defective units	15,000
Recruitment cost	1,56,340
Training cost	1,13,180
Settlement cost of workers leaving	1,83,480
Profit forgone in 2022-23	9,00,000

Question:5

How much quantity of output is lost due to inexperience of the new worker?
   a) 1,000 units
   b) 2,600 units
   c) 2,000 units
   d) 12,600 units

Feedback:

Output by experienced workers in 50,000 hours =5,000 units
Output by new recruits =60% of 5,000=3,000 units
Loss of output =5,000-3,000=2,000 units

CASE SCENARIO 22

P Ltd. has gathered cost information from ledgers and other sources for the year ended 31st December 2023. The information are tabulated below:

Sl. No.		Amount (Rs.)	Amount (Rs.)
(i)	Raw materials purchased		5,00,00,000
(ii)	Freight inward		9,20,600
(iii)	Wages paid to factory workers		25,20,000
(iv)	Royalty paid for production		1,80,000
(v)	Amount paid for power & fuel		3,50,000
(vi)	Job charges paid to job workers		3,10,000
(vii)	Stores and spares consumed		1,10,000
(viii)	Depreciation on office building		50,000
(ix)	Repairs & Maintenance paid for:		

	• Plant & Machinery	40,000	
	• Sales office building	20,000	60,000
(x)	Insurance premium paid for:		
	• Plant & Machinery	28,200	
	• Factory building	18,800	47,000
(xi)	Expenses paid for quality control check activities		18,000
(xii)	Research & development cost paid for improvement in production process		20,000
(xiii)	Expenses paid for pollution control and engineering & maintenance		36,000
(xiv)	Salary paid to Sales & Marketing mangers		5,60,000
(xv)	Salary paid to General Manager		6,40,000
(xvi)	Packing cost paid for:		
	• Primary packing necessary to maintain quality	46,000	
	• For re-distribution of finished goods	80,000	1,26,000
(xvii)	Fee paid to independent directors		1,20,000
(xviii)	Performance bonus paid to sales staffs		1,20,000
(xix)	Value of stock as on 1st January, 2023:		
	• Raw materials	10,00,000	
	• Work-in-process	8,60,000	
	• Finished goods	12,00,000	30,60,000
(xx)	Value of stock as on 31st December, 2023:		
	• Raw materials	8,40,000	
	• Work-in-process	6,60,000	
	• Finished goods	10,50,000	25,50,000

Amount realized by selling of scrap and waste generated during manufacturing process - Rs.48,000/-

The board meeting is scheduled to be held in next week and you being an associate to the chief cost controller of the company, has been asked to be

prepared with the following figures:

Question:1
How much is the prime cost of the company?
  a) Rs. 5,10,80,600
  b) **Rs.5,44,40,600**
  c) Rs.5,36,00,600
  d) Rs.5,19,20,600
Feedback:

Statement of Cost of P Ltd. for the year ended 31st December, 2023:

Sl. No.	Particulars	Amount (Rs.)	Amount (Rs.)
(i)	Material Consumed:		
	• Raw materials purchased	5,00,00,000	
	• Freight inward	9,20,600	
	Add: Opening stock of raw materials	10,00,000	
	Less: Closing stock of raw materials	(8,40,000)	5,10,80,600
(ii)	Direct employee (labour) cost:		
	• Wages paid to factory workers		25,20,000
(iii)	Direct expenses:		
	• Royalty paid for production	1,80,000	
	• Amount paid for power & fuel	3,50,000	
	• Job charges paid to job workers	3,10,000	8,40,000
	Prime Cost		**5,44,40,600**
(iv)	Works/ Factory overheads:		
	• Stores and spares consumed	1,10,000	
	• Repairs & Maintenance paid for plant & machinery	40,000	
	• Insurance premium paid for plant & machinery	28,200	

	• Insurance premium paid for factory building	18,800	
	• Expenses paid for pollution control and engineering & maintenance	36,000	2,33,000
	Gross factory cost		5,46,73,600
	Add: Opening value of W-I-P		8,60,000
	Less: Closing value of W-I-P		(6,60,000)
	Factory Cost		5,48,73,600
(v)	Quality control cost:		
	• Expenses paid for quality control check activities		18,000
(vi)	Research & development cost paid for improvement in production process		20,000
(vii)	Less: Realisable value on sale of scrap and waste		(48,000)
(viii)	Add: Primary packing cost		46,000
	Cost of Production		5,49,09,600
	Add: Opening stock of finished goods		12,00,000
	Less: Closing stock of finished goods		(10,50,000)
	Cost of Goods Sold		5,50,59,600
(ix)	Administrative overheads:		
	• Depreciation on office building	50,000	
	• Salary paid to General Manager	6,40,000	

	• Fee paid to independent directors	1,20,000	8,10,000
(x)	Selling overheads:		
	• Repairs & Maintenance paid for sales office building	20,000	
	• Salary paid to Manager- Sales & Marketing	5,60,000	
	• Performance bonus paid to sales staffs	1,20,000	7,00,000
(xi)	Distribution overheads:		
	• Packing cost paid for re-distribution of finished goods		80,000
	Cost of Sales		5,66,49,600

.

Question: 2

How much is the cost of production?

    a) **Rs. 5,49,09,600**
    b) Rs.5,50,59,600
    c) Rs.5,48,73,600
    d) Rs.5,50,59,000

Question:3

What is the value of cost of goods sold?

    a) Rs.5,49,09,600
    b) **Rs.5,50,59,600**
    c) Rs. 5,48,73,600
    d) Rs. 5,50,59,000

Question:4

How much is the factory cost?

    a) Rs. 5,49,09,600
    b) Rs. 5,50,59,600
    c) **Rs.5,48,73,600**
    d) Rs.5,50,59,000

Question: 5

What is the value of cost of sales?

    a) **Rs. 5,66,49,600**
    b) Rs.5,50,59,600

c) Rs.5,48,73,600
d) Rs.5,50,59,000

CASE SCENARIO 23

The following information is given

Budgeted production	12,000 units
Budgeted Variable Overheads	Rs.2,40,000
Standard time for one unit of output	2 hours
Actual production	11,800 units
Actual overheads incurred	Rs.2,44,000
Actual hours worked	23,200 hours

Question: 1
What is 'Variable Overhead Efficiency Variance'?
    a) Rs. 4000 (A)
    b) Rs. 6000 (A)
    c) Rs. 2000 (F)
    d) Rs.4000 (F)
Feedback:
Variable Overhead Efficiency Variance:
=Std. rate per hour x (Std. hours for actual production - Actual hours)
=Rs.10 (2 hours × 11,800 units -23,200 hours) = Rs.4,000 (F)
Workings:
1. Standard cost per unit = Rs. 2,40,000 /12,000units = Rs.20
2.Standard cost per hour = Rs.2,40,000/12,000 units x2 hours =Rs.10

CASE SCENARIO 24

A company sells two products, A and B. The sales mix is 4 units of A and 3 units of B. The contribution margins per unit are Rs.140 for A and Rs. 70 for B. Fixed costs are Rs.6,16,000 per month.

Question: 1
What is Break Even Point for Product B?
    a) 5,600 units
    b) 2,400 units
    c) 3,200 units
    d) 800 units
Feedback:
Sales mix (in quantity) is 4 units of Product- A and 3 units of Product- B
Composite contribution per unit by taking weights for the product sales quantity
Product A:
    Rs.140 X 4/7
+Product B:
    Rs.70x 3/7

Rs.80+Rs. 30=Rs.110
Composite Break-even point=
Rs.6,16,000 /Rs.110
= 5,600 units
Break-even units of Product-B=
5,600× 3/7
=2,400 units

CASE SCENARIO 25

Total passenger km run by APL logistic Ltd. was Rs. 43,80,480 for the year between Dalhi and Manesar. The bus made 3 round trips per day. Seating capacity of the bus was 52 passengers and average daily occupancy was 75% and the bus runs on an average 26 days in a month.

Question: 1
Calculate the distance between Delhi and Manesar
   a) 55 km
   b) 720 km
   c) 65 km
   d) 60 km
Feedback:
Let's assume distance between Delhi and Manesar is 'X'
Therefore: X×39x2×3x26×12= Rs. 43,80,480
x = 60

CASE SCENARIO 26

Purchase price	Rs.10,00,000
Custom duty	Rs.2,00,000
GST (Input credit available)	@12% on purchase price
Octroi	Rs.5,000
Carriage inward	Rs.12,000
Demurrage charges	Rs.16,100
Commission on purchase	Rs.10,000
Stock of Raw Material:	
Opening	Rs.1,00,000
Closing	Rs.2,00,000

Question:1
Raw material consumed will be:
   a) **Rs. 11,27,000**
   b) Rs. 11,43,100
   c) Rs.12,63,100
   d) Rs. 12,58,100
Feedback:

Variable Overhead Efficiency Variance:

= Std. rate per hour × (Std. hours for actual production — Actual hours)

= Rs.10 (2 hours × 11,800 units — 23,200 hours) = Rs.4,000 (F)

Workings:

1. Standard cost per unit = Rs. 2,40,000\12,000units

$$\frac{\text{Rs. 2,40,000}}{\text{12,000units}}$$

= Rs. 20

2. Standard cost per hour = Rs. 2,40,000\12,000 units × 2 hours

$$\frac{\text{Rs.2,40,000}}{\text{12,000 units} \times \text{2 hours}}$$

= Rs.10

CASE SCENARIO 27

In case of joint products, the main objective of accounting of the cost is to apportion the joint costs incurred up to the split off point. For cost apportionment one company has chosen Physical Quantity Method. Three joint products 'A,'B' and 'C' are produced in the same process. Up to the point of split off the total production of A,B and C is 60,000 kg, out of which 'A' produces 30,000 kg and joint costs are Rs.3,60,000.

Question:1
Joint costs allocated to product A is-
   a) Rs. 1,20,000
   b) Rs. 60,000
   c) Rs.1,80,000
   d) Rs. 2,00,000
Feedback:
costs allocated to product A is =(60,000kg/30,000kg)*3,60,000 =1,80,000

CASE SCENARIO 28

During half year ending inter departmental review meeting of P Ltd., cost variance report was discussed and the performance of the departments were assessed. The following figures were presented.
For a period of first six months of the financial year, following information were

extracted from the books:

Actual production overheads   Rs.34,08,000

The amount is inclusive of the following payments made:

Paid as per court's order	Rs.4,50,000
Expenses of previous year booked in current year	Rs.1,00,000
Paid to workers for strike period under an award	Rs.4,20,000
Obsolete stores written off	Rs.36,000

Production and sales data for the six months are as under

Production:

Finished goods	1,10,000 units
Work-in-progress (50% complete in every respect)	80,000 units
Sale:	
Finished goods	90,000 units

Machine worked during the period was 3,000 hours.

At the of preparation of revenue budget, it was estimated that a total of Rs.50,40,000 would be required for budgeted machine hours of 6,000 as production overheads for the entire year

During the meeting, a data analytic report revealed that 40% of the over/under-absorption was due to defective production policies and the balance was attributable to increase in costs.

You were also present at the meeting; the chairperson of the meeting has asked you to be ready with the followings for the performance appraisal of the departmental heads:

Question:1

How much was the budgeted machine hour rate used to recover overhead?
   a) Rs.760
   b) Rs.820
   c) Rs.780
   d) Rs.840

Question: 2

How much amount of production overhead has been recovered (absorbed) upto the end of half year end?
   a) **Rs.25,20,000**
   b) Rs.34,08,000
   c) Rs.24,00,000
   d) Rs. 24,60,000

Feedback:

	Amount (Rs.)	Amount (Rs.)
Total production overheads actually incurred during the period		34,08,000
Less: Amount paid to worker as per court order	4,50,000	
Expenses of previous year booked in the current year	1,00,000	
Wages paid for the strike period under an award	4,20,000	
Obsolete stores written off	36,000	10,06,000
		24,02,000
Less: Production overheads absorbed as per machine hour rate (3,000 hours × Rs.840*)		25,20,000
Amount of over absorbed production overheads		1,18,000

* Budgeted Machine hour rate (Blanket rate) calculated in part (i)

Question: 3
What is the amount of overhead under/ over absorbed?
   a) **1,18,000 over-absorbed**
   b) 1,18,000 under- absorbed
   c) 18,000 over-absorbed
   d) 18,000 under-absorbed
Feedback:

	Amount (Rs.)	Amount (Rs.)
Total production overheads actually incurred during the period		34,08,000
Less: Amount paid to worker as per court order	4,50,000	
Expenses of previous year booked in the current year	1,00,000	
Wages paid for the strike period under an award	4,20,000	
Obsolete stores written off	36,000	10,06,000
		24,02,000
Less: Production overheads absorbed as per machine hour rate (3,000 hours × Rs.840*)		25,20,000
Amount of over absorbed production overheads		1,18,000

* Budgeted Machine hour rate (Blanket rate) calculated in part (i)

Question:4
What is the supplementary rate for apportionment of over absorbed overheads over WIP, Finished goods and Cost of sales?
 a) Rs.0.315 per unit
 b) Rs.0.472 per unit
 c) Rs.0.787 per unit
 d) Rs.1 per unit
Feedback:
Accounting treatment of over absorbed production overheads: As, 40% of the over absorbed overheads were due to defective production policies, this being abnormal, hence should be credited to Costing Profit and Loss Account.
Amount to be credited to Costing Profit and Loss Account -Rs.1,18,000x 40% = Rs.47,200.
Balance of over absorbed production overheads should be distributed over Works in progress, Finished goods and Cost of sales by applying supplementary rate.
Amount to be distributed =Rs.1,18,000x 60%= Rs.70,800
Supplementary rate =0.472

Question: 5

What is the amount of over absorbed overhead apportioned to Work in Progress?
   a) Rs.9,440
   b) Rs.42,480
   c) Rs.18,880
   d) Rs.70,800
Feedback:
Apportionment of over absorbed production overheads over WIP, Finished goods and cost of sales

	Equivalent completed units	Amount (Rs.)
Work-in-Progress (80,000 units × 50% ×0.472)	40,000	18,880
Finished goods (20,000 units × 0.472)	20,000	9,440
Cost of sales (90,000 units × 0.472)	90,000	42,480
Total	1,50,000	70,800

CASE SCENARIO 29

The analysis of cost sheet of A Ltd. for the last financial year has revealed the following
information for it's product R:

Elements of Cost	Variable Cost portion	Fixed Cost
Direct Material	30% of cost of goods sold	–
Direct Labour	15% of cost of goods sold	–
Factory Overhead	10% of cost of goods sold	Rs. 2,30,000
General & Administration Overhead	2% of cost of goods sold	Rs. 71,000
Selling & Distribution Overhead	4% of cost of sales	Rs. 68,000

Last year 5,000 units were sold at Rs. 185 per unit.
You being an associate to cost controller of the A Ltd., is expected to answer the followings

Question:1
What is the cost of goods sold for the last year?
   a) Rs.7,20,000
   b) Rs.7,00,000
   c) Rs.7,10,000
   d) Rs.7,30,000
Feedback:

Calculation of Cost of Goods Sold
COGS={(DM-0.3COGS)+(DL-0.15COGS)+(FOH-0.10COGS+Rs.2,30,000)+(G&AOH-0.02COGS+
Rs.71,000)}
Or COGS = 0.57 COGS + Rs.3,01,000
Or COGS = Rs.7,00,000

Question: 2
What is the cost of sales for the last year?
    a) **Rs.8,00,000**
    b) Rs.8,20,000
    c) Rs.8,10,000
    d) Rs.7,90,000
Feedback:
Calculation of cost of sales
COS = COGS + (S&DOH - 0.04COS + Rs.68,000)
Or COS = Rs.7,00,000 + (0.04COS + Rs.68,000)
Or COS = Rs.8,00,000

Question: 3
The total fixed cost is:
    a) Rs.3,79,000
    b) Rs.3,89,000
    c) Rs.3,59,000
    d) Rs.3,69,000
Feedback:

Calculation of total Fixed Costs:

Factory Overhead-	Rs. 2,30,000
General & Administration OH-	Rs. 71,000
Selling & Distribution OH	Rs. 68,000
	Rs. 3,69,000

Question:4
Calculate Break-even Sales (in rupees)
    a) **Rs.6,90,882**
    b) Rs.7,90,000
    c) Rs.3,89,000
    d) Rs.5,48,692
Feedback:

Workings:

Calculation of Variable Costs:

Direct Material-	(0.3 × 7,00,000)	Rs.	Rs. 2,10,000
Direct Labour-	(0.15 × 7,00,000)	Rs.	Rs. 1,05,000
Factory Overhead-	(0.10 × 7,00,000)	Rs.	Rs. 70,000
General & Administration OH-	(0.02 × 7,00,000)	Rs.	Rs. 14,000
Selling & Distribution OH	(0.04 × 8,00,000)	Rs.	Rs. 32,000
			Rs. 4,31,000

Calculation of P/V Ratio:
P/V Ratio = 53.41%
Breakeven sales = Rs.6,90,882

Question:5
What is the Margin of safety (in %)?
   a) 26.58%
   b) 25.31%
   c) 53.41%
   d) 34.25%
Feedback:
Margin of safety (%) = 25.31%