

# **Managerial Economics and Financial Accounting problems and solutions for Unit II, Unit IV, and Unit V**

## **Formulas**

### **1. Contribution**

$$\text{Contribution} = \text{Sales} - \text{Variable cost}$$

OR

$$\text{Contribution} = \text{Sales} \times \text{P/V Ratio}$$

OR

$$\text{Contribution per Unit (in units)} = \text{Selling Price per Unit} - \text{Variable Cost per Unit}$$

### **2. P/V Ratio (Profit/Volume Ratio)**

$$\text{P/V Ratio (\%)} = (\text{Contribution} / \text{sales}) \times 100$$

OR

$$\text{P/V Ratio (\%)} = (\text{Change in Profit} / \text{Change in Sales}) \times 100$$

### **3. Fixed Costs**

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

OR

$$\text{Fixed Costs} = (\text{Sales} \times \text{P/V Ratio}) - \text{Profit}$$

### **4. Break-Even Sales**

$$\text{Break-Even Sales} = \text{Fixed Costs} / \text{P/V Ratio}$$

### **4. Break-Even Units**

$$\text{Break-Even Units} = \text{Fixed Costs} / \text{Contribution per Unit}$$

### **5. Profit at a Given Sales Level**

$$\text{Profit} = (\text{Sales} \times \text{P/V Ratio}) - \text{Fixed Costs}$$

### **6. Sales at a Given profit**

$$\text{Required Sales (Units)} = (\text{Fixed Cost} + \text{Target Profit}) / \text{P/V Ratio}$$

### **7. Margin of Safety (₹)**

$$\text{MOS (₹)} = \text{Actual Sales} - \text{Break-Even Sales}$$

### **8. Margin of Safety (%)**

$$\text{MOS (\%)} = [(\text{Actual Sales} - \text{Break-Even Sales}) / \text{Actual Sales}] \times 100$$

OR

$$\text{MOS (\%)} = [\text{MOS (₹)} / \text{Actual Sales}] \times 100$$

Q1:

XYZ Ltd. sells a product with the following cost structure:

Selling Price per Unit = ₹50

Variable Cost per Unit = ₹30

Fixed Costs = ₹20,000

Find the following:

- P/V Ratio
- Break-Even Sales (in ₹ & units)
- Sales required to earn a profit of ₹5,000
- New Break-Even Sales if Selling Price is reduced by 10%

**Sol:**

### **1. P/V Ratio (Profit/Volume Ratio)**

Formula:

$$\text{P/V Ratio} = ((\text{Selling Price} - \text{Variable Cost}) / \text{Selling Price}) \times 100$$

$$= ((50 - 30) / 50) \times 100 = 40\%$$

$$\text{P/V Ratio} = 40\%$$

### **2. Break-Even Sales**

#### **(a) In ₹ (Sales Value):**

$$\text{Break-Even Sales} = \text{Fixed Costs} / \text{P/V Ratio} = 20,000 / 0.40 = ₹50,000$$

#### **(b) In Units:**

$$\text{Break-Even Units} = \text{Fixed Costs} / (\text{Selling Price} - \text{Variable Cost}) = 20,000 / 20 = 1,000 \text{ units}$$

$$\text{Break-Even Sales} = ₹50,000 \text{ or } 1,000 \text{ units}$$

### **3. Sales Required to Earn a Profit of ₹5,000**

$$\text{Required Sales} = (\text{Fixed Cost} + \text{Desired Profit}) / \text{P/V Ratio}$$

$$= (20,000 + 5,000) / 0.40 = ₹62,500$$

$$\text{Sales required to earn ₹5,000 profit} = ₹62,500$$

### **4. New Break-Even Sales if Selling Price is reduced by 10%**

$$\text{New Selling Price} = ₹50 - 10\% \text{ of } ₹50 = ₹45$$

$$\text{New Contribution per Unit} = \text{New Selling Price} - \text{Variable Cost} = ₹45 - ₹30 = ₹15$$

$$\text{New P/V Ratio} = ((\text{New Selling Price} - \text{Variable Cost}) / \text{Selling Price}) \times 100$$

$$= (15 / 45) \times 100 = 33.33\%$$

$$\text{Break-Even Sales (₹)} = \text{Fixed Costs} / \text{P/V Ratio} = 20,000 / 0.3333 \approx ₹60,000$$

$$\text{Break-Even Sales (Units)} = \text{Fixed Costs} / (\text{Selling Price} - \text{Variable Cost})$$

$$= 20,000 / 15 = 1,334 \text{ units}$$

## Q2

Pepsi Company produces a single product, and the following cost data is available:

Selling Price per Unit = ₹40

Variable Cost per Unit = ₹24

Fixed Cost per Annum = ₹16,000

Calculate the following:

Profit Volume (P/V) Ratio

Break-Even Sales (both in units & sales revenue)

Sales required to earn a target profit of ₹2,000

Profit when total sales revenue is ₹60,000

New Break-Even Sales (units & revenue), if the selling price is reduced by 10%

### **Solution:**

Given Data:

Selling Price per Unit = ₹40

Variable Cost per Unit = ₹24

Fixed Cost per Annum = ₹16,000

Calculations:

### **1. Profit Volume (P/V) Ratio:**

$$P/V \text{ Ratio} = (\text{Contribution per Unit} / \text{Selling Price per Unit}) \times 100$$

$$\begin{aligned} \text{Contribution per Unit} &= \text{Selling Price unit} - \text{Variable cost per unit} \\ &= ((40 - 24) / 40) \times 100 = 40.00\% \end{aligned}$$

### **2. Break-Even Sales:**

$$\begin{aligned} \text{Break-Even Sales (Units)} &= \text{Fixed Cost} / \text{Contribution per Unit} \\ &= 16000 / 16 = 1000 \text{ units} \end{aligned}$$

$$\begin{aligned} \text{Break-Even Sales (Revenue)} &= \text{Break-Even units} \times \text{Selling price Per Unit} \\ &= 1000 \times 40 = ₹40000.00 \end{aligned}$$

### **3. Sales Required to Earn Target Profit of ₹2,000:**

$$\begin{aligned} \text{Required Sales} &= (\text{Fixed Cost} + \text{Target Profit}) / P/V \text{ Ratio} \\ &= (16000 + 2000) / 40\% \\ &= 18000 / 0.40 \\ &= ₹ 45000 \end{aligned}$$

#### 4. Profit when Sales Revenue is ₹60,000:

Formula: Desired Profit = Sales  $\times$  P/V Ratio - Fixed Cost

$$\text{Profit} = ₹60000 \times 0.40 - ₹16000 = ₹8000.00$$

#### 5. New Break-Even Sales (After 10% Reduction in Selling Price):

$$\text{New Selling Price} = ₹40 - 10\% \text{ of } ₹40 = ₹36.00$$

$$\text{New Contribution per Unit} = ₹36.00 - ₹24 = ₹12.00$$

$$\text{New Break-Even Sales (Units)} = 16000 / ₹12.00 = 1333 \text{ units}$$

$$\text{New Break-Even Sales (Revenue)} = 1333 \times ₹36.00 = ₹48000.00$$

Q3:

A company provides the following financial data:

Year	Sales (₹)	Profit (₹)
2022	2,00,000	40,000
2023	2,80,000	60,000

Calculate the following:

- P/V Ratio
- Fixed Costs
- Break-Even Sales
- Expected Profit if Sales are ₹1,00,00
- Margin of safety

#### Given Financial Data:

Year	Sales (₹)	Profit (₹)
2022	2,00,000	40,000
2023	2,80,000	60,000

#### a) P/V Ratio:

$$\text{P/V Ratio} = (\text{Change in Profit} / \text{Change in Sales}) \times 100$$

$$= (60,000 - 40,000) / (2,80,000 - 2,00,000) \times 100$$

$$= (20,000 / 80,000) \times 100 = 25\%$$

#### b) Fixed Costs:

$$\text{Contribution} = \text{Sales} \times \text{P/V Ratio} = 2,00,000 \times 25\% = ₹50,000$$

$$\text{Fixed Costs} = \text{Contribution} - \text{Profit} = 50,000 - 40,000 = ₹10,000$$

**c) Break-Even Sales:**

Break-Even Sales = Fixed Costs / P/V Ratio = 10,000 / 0.25 = ₹40,000

**d) Expected Profit if Sales are ₹1,00,000:**

Profit = (Sales × P/V Ratio) - Fixed Costs

= (1,00,000 × 25%) - 10,000 = 25,000 - 10,000 = ₹15,000

**e) Margin of Safety:**

**formula: Actual sales – B.E.P Sales**

Year	Sales (₹)	Profit (₹)	Break-Even Sales (₹)	MOS (₹) Actual sales – B.E.P Sales	MOS (%) $\left( \frac{\text{Actual Sales} - \text{Break-Even Sales}}{\text{Actual Sales}} \right) \times 100$
2022	2,00,000	40,000	40,000	1,60,000	80%
2023	2,80,000	60,000	40,000	2,40,000	85.71%

**Q4.** From the given data, calculate the following:

Year	Sales (₹)	Profit (₹)
2023	1,80,000	30,000
2024	2,60,000	50,000

Calculate the following:

- a) P/V Ratio
- b) Fixed Costs
- c) Break-Even Sales

Expected Profit if Sales are ₹1,00,00

**Given Data:**

Year	Sales (₹)	Profit (₹)
2023	1,80,000	30,000
2024	2,60,000	50,000

**Calculations:**

**a) P/V Ratio**

P/V Ratio = (Change in Profit) / (Change in Sales)

= (50,000 - 30,000) / (2,60,000 - 1,80,000) = 0.25 or 25%

**b) Fixed Costs**

Using the formula: Profit = Sales × P/V Ratio – Fixed Costs

30,000 = 1,80,000 × 0.25 – Fixed Costs

Fixed Costs = 45,000 – 30,000 = ₹15,000

**c) Break-Even Sales**

Break-Even Sales = Fixed Costs / P/V Ratio

$$= 15,000 / 0.25 = ₹60,000$$

**d) Expected Profit if Sales are ₹1,00,000**

Profit = Sales × P/V Ratio – Fixed Costs

$$= 1,00,000 \times 0.25 - 15,000 = ₹10,000$$

**Summary:**

Item	Value
P/V Ratio	25%
Fixed Costs	₹15,000
Break-Even Sales	₹60,000
Profit at ₹1,00,000 Sales	₹10,000

Q5. A company is considering two investment projects: Project A and Project B. The initial investment required for each project is ₹50,000. The expected cash inflows (CFAT) from both projects are as follows:

Year	Project A (₹)	Project B (₹)
1	20,000	10,000
2	15,000	15,000
3	10,000	20,000
4	5,000	25,000

Calculate the Payback Period for both Project A and Project B. And Which project should the company prefer based on the Payback Period method?

Payback Period Analysis for Project A and Project B

**Project A – Payback Period Calculation**

Year	Cash Inflow (₹)	Cumulative Cash Inflow (₹)
1	20,000	20,000
2	15,000	35,000
3	10,000	45,000
4	5,000	50,000

Payback Period for Project A = 4 years

### Project B – Payback Period Calculation

Year	Cash Inflow (₹)	Cumulative Cash Inflow (₹)
1	10,000	10,000
2	15,000	25,000
3	20,000	45,000
4	25,000	70,000

In Year 3, cumulative inflow = ₹45,000

Still needed: ₹50,000 - ₹45,000 = ₹5,000

Year 4 inflow = ₹25,000, so

Payback Period=Base Year+ Uncovered Amount

-----  
Next Year Cash Flow (CFAT)

payback occurs at:  $3 + (5,000 / 25,000) = 3.2$  years

Payback Period for Project B = 3.2 years

### Conclusion

Based on the Payback Period method:

Project A: 4 years

Project B: 3.2 years

The company should prefer **Project B**, as it recovers the investment faster.

### Q6

A company is evaluating a project that requires an initial investment of ₹1,50,000. The expected cash flows after tax (CFAT) for the next 5 years are as follows:

Year	CFAT (₹)
1	40,000
2	50,000
3	45,000
4	35,000
5	30,000

The discount rate (Cost of Capital) is 10%. Calculate the Net Present Value (NPV) of the project.

(Hint : Formula for discount factor

$$DF = \frac{1}{(1 + k)^t}$$

### NPV Calculation Table at 10% Discount Rate

Year	CFAT (₹)	Discount Factor @10%	Present Value (₹)
1	40,000	0.909	$40,000 \times 0.909 = 36,360$
2	50,000	0.826	$50,000 \times 0.826 = 41,300$
3	45,000	0.751	$45,000 \times 0.751 = 33,795$
4	35,000	0.683	$35,000 \times 0.683 = 23,905$
5	30,000	0.621	$30,000 \times 0.621 = 18,630$
	<b>Total PV of Cash Flows</b>		<b>₹1,53,990</b>
	<b>Initial Investment</b>		<b>₹1,50,000</b>
	<b>Net Present Value (NPV)</b>		<b>₹3,990</b>

Since NPV = ₹3,990 (positive), the project **should be accepted**.

Q6

XYZ Ltd. is evaluating a project requiring an initial investment of ₹5,00,000. The expected Cash Flows After Tax (CFAT) over 5 years are as follows:

Year	CFAT (₹)
1	1,20,000
2	1,30,000
3	1,50,000
4	1,40,000
5	1,60,000

The discount rate is 10% and required to calculate Payback Period, Net Present Value and Profitability Index

#### 1) Payback Period

Payback Period = Time taken to recover the initial investment from CFATs.

We compute the cumulative cash flows:

Year	CFAT (₹)	Cumulative CFAT (₹)
1	1,20,000	1,20,000
2	1,30,000	2,50,000
3	1,50,000	4,00,000
4	1,40,000	5,40,000
5	1,60,000	7,00,000

By end of Year 3 → ₹4,00,000 recovered.

Remaining = ₹5,00,000 – ₹4,00,000 = ₹1,00,000

Payback Period = Base Year + Uncovered Amount

$$\begin{aligned}
 & \text{-----} \\
 & \text{Next Year Cash Flow (CFAT)} \\
 & = 3 + 100000/140000 \\
 & = 3 + 0.71
 \end{aligned}$$



= 3.71 years

## 2 ) Net present value

Year	CFAT (₹)	Discount Factor @10%	Present Value (₹)
1	1,20,000	0.909	$1,20,000 \times 0.909 = 1,09,080$
2	1,30,000	0.826	$1,30,000 \times 0.826 = 1,07,380$
3	1,50,000	0.751	$1,50,000 \times 0.751 = 1,12,650$
4	1,40,000	0.683	$1,40,000 \times 0.683 = 95,620$
5	1,60,000	0.621	$1,60,000 \times 0.621 = 99,360$
<b>Total PV of Cash Flows</b>			<b>₹5,24,090</b>
<b>Initial Investment</b>			<b>₹ 5,00,000</b>
<b>Net Present Value (NPV)</b>			<b>₹24,090</b>

## 3.Profitability Index (PI)

PI=Total Present Value of Cash Flow / Initial Investment

=5,24,090/5,00,000

=1.048

## 4.Internal rate of Return (IRR)

Year	CFAT (₹)	Discount Factor @10%	PV @10% (₹)	Discount Factor @15%	PV @15% (₹)
1	1,20,000	0.909	$1,20,000 \times 0.909 = 1,09,080$	0.870	$1,20,000 \times 0.870 = 1,04,400$
2	1,30,000	0.826	$1,30,000 \times 0.826 = 1,07,380$	0.756	$1,30,000 \times 0.756 = 98,280$
3	1,50,000	0.751	$1,50,000 \times 0.751 = 1,12,650$	0.658	$1,50,000 \times 0.658 = 98,700$
4	1,40,000	0.683	$1,40,000 \times 0.683 = 95,620$	0.572	$1,40,000 \times 0.572 = 80,080$
5	1,60,000	0.621	$1,60,000 \times 0.621 = 99,360$	0.497	$1,60,000 \times 0.497 = 79,520$
<b>Total PV of CFs</b>			<b>₹5,24,090</b>		<b>₹4,60,980</b>

<b>Initial Investment</b>	<b>₹5,00,000</b>		<b>₹5,00,000</b>
<b>Net Present Value</b>	<b>₹24,090</b>		<b>-₹39,020</b>

$$\text{IRR} = \text{Lower Rate} + \left( \frac{\text{NPV at Lower Rate}}{\text{NPV at Lower Rate} - \text{NPV at Higher Rate}} \right) \times (\text{Higher Rate} - \text{Lower Rate})$$

- Lower Rate = 10%
- Higher Rate = 15%
- NPV at Lower Rate (10%) = ₹24,090
- NPV at Higher Rate (15%) = -₹39,020

$$\text{IRR} = 10\% + ((24,090) / (24,090 - (-39,020))) \times (15\% - 10\%)$$

$$\text{IRR} = 10\% + (24,090 / 63,110) \times 5\%$$

$$\text{IRR} = 10\% + (0.3816) \times 5\%$$

$$\text{IRR} = 10\% + 1.91\%$$

$$\text{IRR} = 11.91\%$$

Q7. ABC Ltd. made the following transactions during the month of March 2024. Prepare the journal entries for each transaction:

Date	Transaction Details	Amount (₹)
Mar-01	Business started with cash	5,00,000
Mar-03	Purchased goods for cash	1,20,000
Mar-05	Cash received from sales	80,000
Mar-08	Purchased furniture for office use	30,000
Mar-12	Paid rent for the office	10,000
Mar-15	Paid salary to employees	25,000
Mar-18	Goods sold on credit to XYZ Ltd.	60,000
Mar-20	Received cash from XYZ Ltd.	40,000
Mar-22	Paid electricity bill	5,000

**Sol:**

**Prepare journal entries in the books of ABC Ltd in the month of March 2024**

Date	Particulars	L.F.	Debit (₹)	Credit (₹)
Mar-01	Cash A/c Dr. To Capital A/c (Being business started with cash)		5,00,000	5,00,000
Mar-03	Purchases A/c Dr. To Cash A/c (Being goods purchased for cash)		1,20,000	1,20,000
Mar-05	Cash A/c Dr.		80,000	

	To Sales A/c (Being goods sold for cash)		80,000
Mar-08	Furniture A/c Dr. To Cash A/c (Being furniture purchased)	30,000	30,000
Mar-12	Rent A/c Dr. To Cash A/c (Being office rent paid)	10,000	10,000
Mar-15	Salaries A/c Dr. To Cash A/c (Being salary paid to employees)	25,000	25,000
Mar-18	XYZ Ltd. A/c Dr. To Sales A/c (Being goods sold on credit)	60,000	60,000
Mar-20	Cash A/c Dr. To XYZ Ltd. A/c (Being part payment received)	40,000	40,000
Mar-22	Electricity Expenses A/c Dr. To Cash A/c (Being electricity bill paid)	5,000	5,000

Q8. XYZ Enterprises had the following transactions during the month of April 2024. Prepare the journal entries for each transaction:

Date	Transaction Details	Amount (₹)
April 1	Business started with cash	4,00,000
April 4	Purchased goods for cash	1,50,000
April 7	Sold goods for cash	90,000
April 10	Purchased machinery for business	50,000
April 14	Paid office rent	12,000
April 18	Paid wages to workers	20,000
April 22	Sold goods on credit to ABC Ltd.	70,000
April 25	Received cash from ABC Ltd.	50,000
April 28	Paid telephone bill	3,000

Sol:

Prepare journal entries in the books of XYZ Enterprises in the month of April 2024

Date	Particulars	L.F	Debit (₹)	Credit (₹)
Apr 1, 2024	Cash A/c To Capital A/c (Business started with cash)		4,00,000	4,00,000
Apr 4, 2024	Purchases A/c To Cash A/c (Purchased goods for cash)		1,50,000	1,50,000
Apr 7, 2024	Cash A/c To Sales A/c		90,000	90,000

Apr 10, 2024	(Sold goods for cash) Machinery A/c	50,000	
	To Cash A/c		50,000
Apr 14, 2024	(Purchased machinery) Rent Expense A/c	12,000	
	To Cash A/c		12,000
Apr 18, 2024	(Paid office rent) Wages Expense A/c	20,000	
	To Cash A/c		20,000
Apr 22, 2024	(Paid wages to workers) Accounts Receivable—ABC Ltd. A/c	70,000	
	To Sales A/c		70,000
Apr 25, 2024	(Sold goods on credit) Cash A/c	50,000	
	To Accounts Receivable—ABC Ltd. A/c		50,000
Apr 28, 2024	(Received cash from ABC Ltd.) Telephone Expense A/c	3,000	
	To Cash A/c		3,000
	(Paid telephone bill)		

Q9. The following balances were extracted from the books of ABC Ltd. on March 31, 2024. Prepare a Trial Balance.

Account Name	Amount (₹)
Capital	3,00,000
Cash in Hand	50,000
Cash at Bank	1,20,000
Purchases	1,80,000
Sales	2,50,000
Rent Paid	20,000
Salaries	30,000
Wages	15,000
Machinery	90,000
Furniture	60,000
Debtors	40,000
Creditors	55,000
Bills Payable	25,000
Bills Receivable	35,000

**Sol:**

Trial Balance as on March 31, 2024		
Particular	Debit (₹)	Credit (₹)
Cash in Hand	50,000	
Cash at Bank	1,20,000	
Purchases	1,80,000	
Rent Paid	20,000	
Salaries	30,000	
Wages	15,000	
Machinery	90,000	
Furniture	60,000	
Debtors	40,000	

Bills Receivable	35,000	
Sales		2,50,000
Creditors		55,000
Bills Payable		25,000
Capital		3,00,000
Total	6,40,000	6,40,000

Q10. Prepare Trading and Profit & Loss Account and Balance Sheet for the year ending March 31, 2024, from the following balances:

**Trial Balance as on March 31, 2024**

Particulars	Amount (₹)	Particulars	Amount (₹)
Opening Stock	40,000	Sales	2,80,000
Purchases	1,60,000	Returns Outward	2,000
Wages	15,000	Discount Received	3,000
Carriage Inward	5,000	Commission Received	5,000
Salaries	25,000	Creditors	30,000
Rent	10,000	Capital	1,32,000
Machinery	1,28,000		
Debtors	35,000		
Returns Inward	4,000		
Cash	20,000		
Drawings	10,000		
Total	4,52,000		4,52,000

**Adjustments:**

- Closing stock is valued at ₹50,000.
- Wages outstanding ₹2,000.
- Salaries outstanding ₹3,000.
- Depreciation on machinery at 10%.

**Solution**

**Dr Trading and Profit & Loss Account for the year ending March 31,**

Particulars	2024	Cr	
To Opening Stock	₹ 40,000	By Sales	₹ 2,80,000
To Purchases	1,60,000	Less: Return Inwards (Sales Returns)	-4,000
Less: Return Outwards (Purchases Returns)	-2,000		2,76,000
	1,58,000		
To Wages	15,000	By Closing Stock	50,000
Add: Outstanding Wages	2,000		
	17,000		
To Carriage Inward	5,000		
To Gross Profit c/d (to P&L Account)	1,06,000		
	3,26,000		3,26,000
To Salaries	25,000	By Gross Profit b/d	1,06,000
Add: Outstanding Salaries	3,000	By Discount Received	3,000
	28,000	By Commission Received	5,000

To Rent	10,000	
To Depreciation on Machinery (10%)	12,800	
To Net Profit transferred to Capital A/c	63,200	
	<b>1,14,000</b>	<b>1,14,000</b>

**Balance Sheet as on March 31, 2024**

Liabilities	₹	Assets	₹
Capital	1,32,000	Machinery	1,28,000
Add: Net Profit	63,200	Less: Depreciation (10%)	-12,800
	<b>1,95,200</b>		<b>1,15,200</b>
Less: Drawings	-10,000	Closing Stock	50,000
	<b>1,85,200</b>	Debtors	35,000
Outstanding Wages	2,000	Cash	20,000
Outstanding Salaries	3,000		
Creditors	30,000		
	<b>2,20,200</b>		<b>2,20,200</b>

Q11 .Prepare Trading and Profit & Loss Account and Balance Sheet for the year ending March 31, 2024, from the following balances:

**Trial Balance as on March 31, 2024**

Particulars	Amount (₹)	Particulars	Amount (₹)
Opening Stock	60,000	Sales	3,50,000
Purchases	2,00,000	Returns Outward	2,000
Wages	25,000	Discount Received	4,000
Carriage Inward	10,000	Commission Received	6,000
Salaries	35,000	Creditors	30,000
Rent	18,000	Capital	2,00,000
Machinery	1,50,000		
Debtors	50,000		
Cash	25,000		
Drawings	12,000		
Returns Inward	7,000		
Total	5,92,000		5,92,000

**Adjustments:**

- Closing Stock is valued at ₹80,000.
- Wages outstanding ₹6,000.
- Salaries outstanding ₹7,000.
- Depreciation on Machinery at 10%.
- Rent prepaid ₹2,000.

- Bad debts 10 % on debtors.

Sol:

Dr                      Trading and Profit & Loss Account for the year ending March 31, 2024                      cr			
Particulars	₹	Particulars	₹
To Opening Stock	60,000	By Sales	3,50,000
To Purchases	2,00,000	Less: Returns Inward (Sales Returns)	-7,000
Less: Returns Outward (Purchases Returns)	-2,000		<b>3,43,000</b>
<b>Net Purchases</b>	<b>1,98,000</b>		<b>0</b>
To Wages	25,000	By Closing Stock	80,000
Add: Outstanding Wages	6,000		
	<b>31,000</b>		
To Carriage Inward	10,000		
To Gross Profit c/d (to P&L Account)	<b>1,24,000</b>		
	<b>0</b>		
	<b>4,23,000</b>		<b>4,23,000</b>
	<b>0</b>		<b>0</b>
To Salaries	35,000	By Gross Profit b/d	1,24,000
Add: Outstanding Salaries	7,000		<b>0</b>
	<b>42,000</b>	By Discount Received	6,000
To Rent	18,000	By Commission Received	4,000
Less: Prepaid Rent	-2,000		
	<b>16,000</b>		
To Bad debts (10% on Debtors) (10% on 50000)	5,000		
To Depreciation on Machinery (10%)	15,000		
To Net Profit transferred to Capital A/c	<b>56,000</b>		
	<b>1,34,000</b>		<b>1,34,000</b>
	<b>0</b>		<b>0</b>

### Balance Sheet as on March 31, 2024

Liabilities	₹	Assets	₹
Capital	2,00,000	Machinery	1,50,000
Add: Net Profit	56,000	Less: Depreciation (10%)	-15,000
			<b>1,35,000</b>
			<b>0</b>

Less: Drawings	-12,000	Closing Stock	80,000
	2,44,000	Debtors	50,000
	0		
Outstanding Wages	6,000	less Bad debts	-5,000
Outstanding Salaries	7,000		45,000
Creditors	30,000	Cash	25,000
		Prepaid Rent	2,000
	2,87,000		2,87,000
	0		0

Q12.. A firm reports the following financial details:

Net Sales = ₹10,00,000

Gross Profit = ₹4,00,000

Net Profit = ₹1,50,000

Operating Profit = ₹2,00,000

Compute the Gross Profit Ratio ,Net Profit ratio , Operating Profit ratio.

#### Given Financial Details:

Net Sales = ₹10,00,000

Gross Profit = ₹4,00,000

Operating Profit = ₹2,00,000

Net Profit = ₹1,50,000

#### Calculated Ratios:

- Gross Profit Ratio**  

$$= (\text{Gross Profit} / \text{Net Sales}) \times 100$$

$$= (\text{₹4,00,000} / \text{₹10,00,000}) \times 100$$

$$= 40\%$$
- Operating Profit Ratio**  

$$= (\text{Operating Profit} / \text{Net Sales}) \times 100$$

$$= (\text{₹2,00,000} / \text{₹10,00,000}) \times 100$$

$$= 20\%$$
- Net Profit Ratio**  

$$= (\text{Net Profit} / \text{Net Sales}) \times 100$$

$$= (\text{₹1,50,000} / \text{₹10,00,000}) \times 100$$

$$= 15\%$$