

Budgeting for Profit Planning

1. What is
2. ? Write down the purposes of budgeting.

Solution:

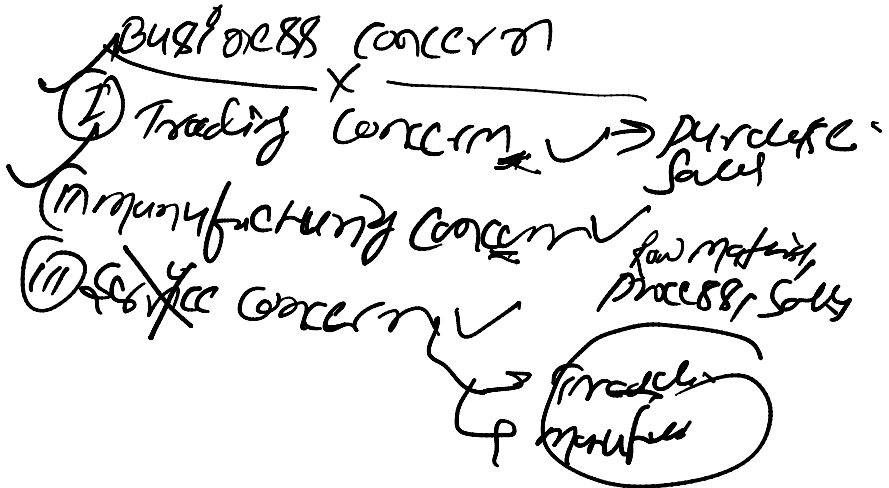
Budgeting is one of the most important tools used to plan and control business operations. A budget may be defined as a comprehensive and co-ordinate plan, expressed in quantitative and/or financial terms, for the operations and resources of an enterprise for some specified period in the future. A master budget or profit plan is a comprehensive set of budgets covering all phases of an organization's operations for a specified period of time in the future. The process of preparing and developing budgets is called budgeting.

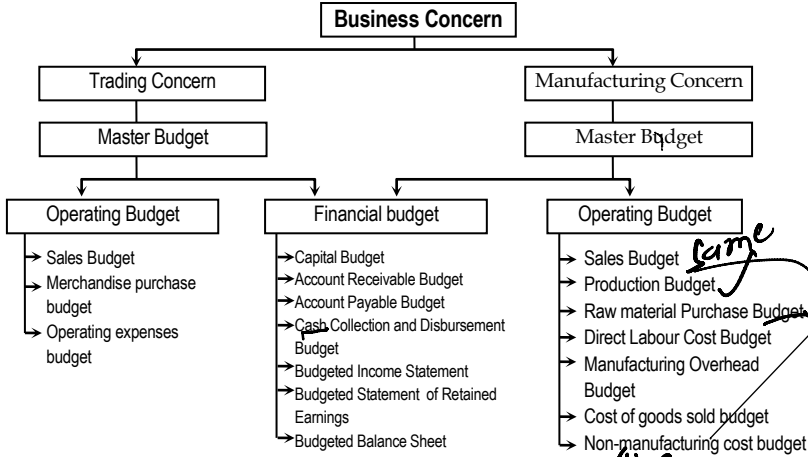
Purposes of Budgeting:

The main purposes of budgeting system are as under:

- To state the expectations in formal terms.
- To communicate or inform others about the goals and method selected by the top management.
- To provide a realistic estimate of income and expenses for a period.
- To co-ordinate the operation of all departments of an organization to achieve organizational goals.
- To allocate the organization's limited resources among competitive users.
- To provide a yardstick against which actual results can be compared i.e. to serve as a basis for controlling.
- To evaluate the performance of individuals, departments, divisions or entire companies.

*Business concern
→ Trading
→ Manufacturing
→ Service*





The Specimen of Cash Budget

Sales Budget with Single Product and Period

... Company

Sales Budget, by Product & by period

For the period

Months	Details	Sales in units	Total amount
Reference		1 = input	2 = 1 × SP
January		xxx	xxx
February		xxx	xxx
March		xxx	xxx
Total		xxx	xxx

Sales Budget by multi Product and Period

.... Company

Sales budget, by Product and by period

For the period

Product	Product – A		Product – B		Total Amount (Rs.)
	Units	Amount (Rs.)	Units	Amount (Rs.)	
Reference	1 = input	2 = 1 × SP	3 = input	4 = 3 × SP	5 = 4 + 2
January	xxx	xxx	xxx	xxx	xxx
February	xxx	xxx	xxx	xxx	xxx
March	xxx	xxx	xxx	xxx	xxx
Total	xxx	xxx	xxx	xxx	xxx

.... Company

Merchandise Purchase Budget

For the period ...

Months	Details	Merchandise Need	Desired ending inventory	Total need	Beginning inventory	Planned purchase
Reference		1 = working note	2 = input	3 = 1 + 2	4 = input	5 = 3 - 4
Baisakh		xxx	xxx	xxx	xxx	xxx
Jestha		xxx	xxx	xxx	xxx	xxx
Ashadh		xxx	xxx	xxx	xxx	xxx
Total		xxx	xxx	xxx	xxx	xxx

... Company

Operating expenses Budget
For the period ...

Months	Net sales revenue	Variable cost	Fixed cost	Total cost
Reference	1 = input	2= 1×Rate	3 = input	4 = 2+3
Baisakh	xxx	xxx	xxx	xxx
Jestha	xxx	xxx	xxx	xxx
Ashadh	xxx	xxx	xxx	xxx
Total	xxx	xxx	xxx	xxx

.... Company
Budgeted production
For the period of ...

Period	Sales unit	Desired Ending Inventory of FG	Total Need	Beg. Inventory of FG	Planned production in unit
Reference	1 = Input	2 = Input	3 = 1+2	4 = Input	5 = 3-4
January	xxx	xxx	xxx	xxx	xxx
February	xxx	xxx	xxx	xxx	xxx
March	xxx	xxx	xxx	xxx	xxx
Total	xxx	xxx	xxx	xxx	xxx

Working Notes:

Raw material requirement =Planned production× standard usages Rate

.... Company
Budgeted Material purchase
For the period of January to March

Period	Planned Requirement	Desired Ending Inventory of RM	Total Need	Beg. Inventory of RM	Planned Purchase	
					Units	Amounts
Reference	1 = WN	2 = Input	3 = 1+2	4 = Input	5 = 3-4	6=5×Rs.4
January	xxx	xxx	xxx	xxx	xxx	xxx
February	xxx	xxx	xxx	xxx	xxx	xxx
March	xxx	xxx	xxx	xxx	xxx	xxx
Total	xxx	xxx	xxx	xxx	xxx	xxx

..... Company
Cash Collection and Disbursement Budget
For the period of

Details	January	February	March
Beginning balance of cash	xxx	xxx	xxx
Add: Cash receipts:			
Cash sales	xxx	xxx	xxx
Collection from same month	xxx	xxx	xxx
Collection from previous month	xxx	xxx	xxx
Collection from two previous month	xxx	xxx	xxx
Collection from account receivable	xxx	xxx	xxx
Sale of fixed assets	xxx	xxx	xxx
Issue of share and debentures	xxx	xxx	xxx
Interest and dividend received	xxx	xxx	xxx
Other cash receipts	xxx	xxx	xxx
Total cash receipts	xxx	xxx	xxx
Total Cash Available	xxx	xxx	xxx
Less: Cash disbursements:			
Cash Purchases	xxx	xxx	xxx
Payment to creditors	xxx	xxx	xxx
Payment of all expenses	xxx	xxx	xxx
Payment of interest, tax & dividend	xxx	xxx	xxx
Purchase of long term assets	xxx	xxx	xxx

Redemption of long term debt	xxx	xxx	xxx
Other cash payment	xxx	xxx	xxx
Total cash disbursement	xxx	xxx	xxx
Minimum cash balance	xxx	xxx	xxx
Total needed cash	xxx	xxx	xxx
Surplus (deficit)	xxx	xxx	xxx
Borrowing – Short term	xxx	xxx	xxx
Repayment: Principal	xxx	xxx	xxx
Interest	xxx	xxx	xxx
Investment in short term securities	xxx	xxx	xxx
Ending balance of cash	xxx	xxx	xxx

..... Company

**Budgeted income statement as per variable costing
For the period**

Details	Amount	Amount
Sales revenue @ Rs. × sales units		xxx
Less: Variable cost of sales:		
Direct material @ Rs. × Production units	xxx	
Direct labour @ Rs. × production units	xxx	
Variable Mfg. Ohs. @ Rs. × production units	xxx	
Variable Cost of Production	xxx	
Add: Beginning inventory	xxx	
Variable cost of goods available for sale	xxx	
Less: Ending inventory	xxx	
Variable cost of goods sold	xxx	
Add: V. selling & adm. Ohs. @ Rs. × sales in units	xxx	xxx
Contribution margin		xxx
Less: Fixed and other cost:		
Fixed cost	xxx	
Other expenses	xxx	xxx
Net profit before interest and tax		xxx
Less: Interest expenses		xxx
Net profit before tax		xxx
Less: Tax expenses @		xxx
Net profit after tax		xxx

..... Company

**Budgeted income statement as per absorption costing
For the period**

Details	Amount	Amount
Sales revenue @ Rs. × sales units		xxx
Less: Cost of goods sold:		
Direct material @ Rs. × Production units	xxx	
Direct labour @ Rs. × production units	xxx	
Variable Mfg. Ohs. @ Rs. × production units	xxx	
Fixed Mfg. Ohs. @ Rs. × production units	xxx	
Cost of Production	xxx	
Add: Beginning inventory	xxx	
Cost of goods available for sale	xxx	
Less: Ending inventory	xxx	
Cost of goods sold unadjusted	xxx	
± Under / over applied of FMOH	xxx	xxx
Gross margin		xxx
Less: Non-manufacturing cost:		
V. selling & adm. Ohs. @ Rs. × sales units	xxx	
Fixed selling and adm. Ohs.	xxx	

Other expenses	xxx	xxx
Net profit before interest and tax		xxx
Less: Interest expenses		xxx
Net profit before tax		xxx
Less: Tax expenses @		xxx
Net profit after tax		xxx

The specimen of budgeted income statement of trading concern is as follows:

..... Company
Budgeted income statement
 For the period

Details	Amount (Rs.)	Amount (Rs.)
Sales revenue		xxx
Less: Cost of merchandise sold:		
Beginning inventory of merchandise	xxx	
Add: Cost of purchases	xxx	
Cost of merchandise available for sale	xxx	
Less: Ending inventory of merchandise	xxx	xxx
Gross margin		xxx
Less: Operating and other expenses:		
Operating expenses	xxx	
Interest expenses	xxx	xxx
Profit before other income		xxx
Add: Other income		xxx
Net profit before tax		xxx
Less: Tax expenses @		xxx
Net profit after tax		xxx

The specimen of budgeted balance sheet

..... Company
Budgeted Balance Sheet
 As at

Liabilities and Owner's Equity	Amount (Rs.)	Assets	Amount (Rs.)
Share capital	xxx	Fixed assets	xxx
Retained earnings	xxx	Current assets	xxx
Long term liabilities	xxx	Intangible assets	xxx
Short term liabilities	xxx	Fictitious assets	xxx
Total	xxx	Total	xxx

Practical Questions Answers

1. **2020** The Balance Sheet as the end of December 2019 of a manufacturing company is given below:

Capital and liabilities	Amount (Rs.)	Assets	Amount (Rs.)
Share capital	400,000	Fixed assets	150,000
Retained earning	194,000	Inventory:	
Account payable	100,000	Raw material (50,000 kg)	100,000
Debenture	64,000	Finished goods (20,000 units)	280,000
		Accounts receivables	208,000
		Cash in hand	20,000
Total	758,000	Total	758,000

The actual sales for November, December and estimated sales from January to May are given for necessary consideration.

Month	Nov	Dec	Jan	Feb	March	April	May
Sales units	15,000	20,000	20,000	25,000	30,000	35,000	40,000

Selling price per unit will be Rs. 20. The sales will be 20% in cash and 80% on credit. The credit sales will be collected 50% on same month, 30% in next month and remaining in next following month of sales. Of the credit sales collected in the same month of sales will enjoy discount facility of 5%

All expenses expect purchase of materials will be payable in the month when they became due. Purchase of material will be paid in next month of purchase. A minimum cash balance will be Rs. 20,000 for each month.

The desired ending inventory of finished goods and the raw material will be sufficient to meet next month's sales and production need respectively. One unit of finished goods will need 2 kg of materials and cost of material Rs. 2 per kg. Direct Labour hour will need 2 hours per units of output and Labour hour rate Rs. 4 per hour.

Variable manufacturing overhead cost will be Rs. 2 per units of output. Fixed manufacturing overhead cost will be Rs. 60,000 per year. Variable non-manufacturing cost Rs. 2 per unit and fixed cost Rs. 24,000 per year. The company will be purchase machinery in January for Rs. 100,000 in cash and debenture will be retired in January.

If there is cash deficiency short-term loan will be borrowing from NIC bank. All borrowing is line at the beginning of a month and all payment are made at end of a month. Borrowing of loan will be in multiple of Rs. 10,000 and repayment of loan multiple of Rs. 1,000. Interest will be paid 12% p.a. on the amount of loan repayment. Depreciation will be change @ 10% on fixed assets.

Required:

- Production budget for three months ending March.
- Cash budget for three months ending March.

Solution:

Mfg. Company
Budgeted production
For the period of January to March

Period \ Details	Sales unit	Desired Ending Inventory of FG	Total Need	Beg. Inventory of FG	Planned production in unit
Reference	1 = Input	2 = Input	3 = 1+2	4 = Input	5 = 3-4
January	20,000	25,000	45,000	20,000	25,000
February	25,000	30,000	55,000	25,000	30,000
March	30,000	35,000	65,000	30,000	35,000
Total	75,000	35,000	110,000	20,000	90,000
April	35,000	40,000	75,000	35,000	40,000

Working Notes:

Raw material requirement = planned production × standard usages Rate

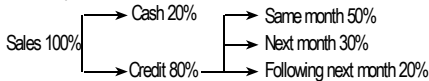
- January = 25,000 units × 2 kg = 50,000 kg
 February = 30,000 units × 2 kg = 60,000 kg
 March = 35,000 units × 2 kg = 70,000 kg
 April = 40,000 units × 2 kg = 80,000 kg

Mfg. Company
Budgeted Material purchase
For the period of January to March

Details Period	Planned Requirement	Desired Ending Inventory of RM	Total Need	Beg. Inventory of RM	Planned Purchase @Rs.2	
					Units	Amounts
Reference	1 = WN	2 = Input	3 = 1+2	4 = Input	5 = 3-4	6=5×Rate
January	50,000	60,000	110,000	50,000	60,000	120,000
February	60,000	70,000	130,000	60,000	70,000	140,000
March	70,000	80,000	150,000	70,000	80,000	160,000
Total	180,000	80,000	260,000	50,000	210,000	420,000

Working Notes:

Sales Policy



Months	Sales Revenue= (Sales unit × SPPU)	cash sales 20%	Credit sales 80%
November	300,000	60,000	240,000
December	400,000	80,000	320,000
January	4,00,000	80,000	3,20,000
February	5,00,000	1,00,000	4,00,000
March	6,00,000	120,000	4,80,000

Months	Credit sales	Credit collection in same month 50%	collection in previous month 30%	collection in next previous month 20%
November	240,000	120,000	72,000	48,000
December	320,000	160,000	96,000	64,000
January	3,20,000	160,000	96,000	64,000
February	4,00,000	200,000	120,000	80,000
March	4,80,000	240,000	144,000	96,000

Months	20%	5% Discount	After discount
October	160,000	8,000	152,000
November	2,00,000	10,000	190,000
December	240,000	12,000	228,000

Variable manufacture cost per unit

Direct material = 1 unit s ×2 kg ×Rs.2 = Rs.4.

Direct Labour = 1 unit s ×2 hours ×Rs.4 = Rs.8.

Variable manufacture overhead = Rs.2

Variable non-manufacturing = Rs. 2

Annual depreciation = 0.10 ×(Rs.150,000+Rs.100,000) = Rs.25,000

Cash manufacture overhead = Rs.60,000- Rs.25,000 = Rs. 35,000.

Monthly manufacture overhead = $\frac{\text{Rs. } 35,000}{12 \text{ months}}$ = Rs.2, 916.667.

Mfg. Company

Cash Collection and Disbursement Budget

For the period of January to March

Particulars	January	February	March
Opening Cash Balance	20,000	25,083	20,166
Add: Cash Receipts			
Cash sales	80,000	100,000	120,000
Collection from same months	160,000	200,000	240,000
Collection from previous months	96,000	96,000	120,000
Collection from 2 previous months	48,000	64,000	64,000
Total cash receipts	384,000	460,000	544,000
Total Cash Available	404,000	485,083	564,166
Less: Cash Disbursement			
Payment of Payable	100,000	120,000	140,000
Payment of labour @ Rs. 8	200,000	240,000	280,000
Variable Mfg. overhead @ Rs. 2	50,000	60,000	70,000
Fixed Mfg. overhead	2,917	2,917	2,917
Variable non-manufacturing @ Rs. 2	40,000	50,000	60,000
fixed non-manufacturing	2,000	2,000	2,000
machine	100,000	-	-
Debenture	64,000	-	-
Total Cash Disbursement	558,917	474,917	554,917
Minimum Cash balance	20,000	20,000	20,000
Total Cash Needed	578,917	494,917	574,917
Surplus/Deficit	(174,917)	(9,834)	(10,751)
Borrowing	180,000	10,000	11,000
Repayment: Principal	-	-	-
Interest	-	-	-
Ending Balance of Cash	25,083	20,166	20,249

2. The A trading company in a process of preparing master budget gathered the following information on its assets and liabilities and also about past and future sales.

	Actual and Forecasted Sales			
Inventory of Merchandise (20,000 units @ Rs. 4)	Rs. 80,000	Nov.	Sales	1,20,000
Accounts Receivable:		Dec.	Sales	1,60,000
Nov. Sales 30,000		Jan.	Sales	1,60,000
Dec. Sales <u>80,000</u>	Rs. 1,10,000	Feb.	Sales	2,00,000
Cash in Hand	Rs. 10,000	Mar.	Sales	2,40,000
Total	Rs. 2,00,000	Apr.	Sales	2,80,000
Account Payable	Rs. 80,000			

Company's sales are mostly on credit. Experience shows that 50% of credit sales are collected in the month of sales and remaining 50% are collected on the following two months of sales equally. Bad debt and uncollectable debts are negligible. All purchase are paid in the following month of purchase. Margin on sales is 50%. Operating and distribution expenses are 30% of the month's sales. Expenses are paid in the month of their being due. The company has policy of maintaining sufficient inventory of merchandise to meet the following month's sales and minimum cash balance of Rs 10000. The company has been thinking to buy a computing machine in the month of January at accost of Rs 80,000. The company has reached with an agreement with a bank for a soft loan at 12% cost. Loans are received in a multiple of Rs 5,000 and payments are made in Rs 1,000.

Required: Cash Receipt and Disbursement Budget for 3 months from January to March.

Solution:

$$\text{Cost to sales Ratio} = 1 - \text{Gross profit ratio} = 1 - 0.50 = 0.50$$

Merchandise need = planned sales × cost to sales ratio

January = Rs. 160,000 × 0.50 = Rs. 80,000

February = Rs. 200,000 × 0.50 = Rs. 100,000

March = Rs. 240,000 × 0.50 = Rs. 120,000

April = Rs. 280,000 × 0.50 = Rs. 140,000

... Company

Merchandise Purchase Budget
For the period of January to March

Month	Merchandise Need	Desire Ending Inventory	Total Needed	Beginning Inventory	Planned Purchase
Reference	1 = W. Note	2 = Input	3 = 1 + 2	4 = Input	5 = 3 - 4
January	80,000	100,000	180,000	80,000	100,000
February	100,000	120,000	220,000	100,000	120,000
March	120,000	140,000	260,000	120,000	140,000
Total	300,000	140,000	440,000	80,000	360,000

Working Note:

Months	Credit sales	Same month 50%	Next month 25%	Following next month 25%
November	120,000	60,000	30,000	30,000
December	160,000	80,000	40,000	40,000
January	160,000	80,000	40,000	40,000
February	200,000	100,000	50,000	50,000
March	240,000	120,000	60,000	60,000

b. Cash Collection and Disbursement Budget

Month	January	February	March
Beginning cash balance	10,000	72,000	232,000
Add: Cash receipts/Collection			
Collection from same month	160,000	200,000	240,000
Collection from previous month	80,000	80,000	100,000
Collection from two previous month	30,000	40,000	40,000
Total cash collection	270,000	320,000	380,000
Total cash available	280,000	392,000	612,000
Less: Cash disbursement:			
Payment to account payable	80,000	100,000	120,000
Payment of operating expenses	48,000	60,000	72,000
Purchase of computing machine	80,000	-	-
Total cash disbursement	208,000	160,000	192,000
Minimum cash balance	10,000	10,000	10,000
Total cash needed	218,000	170,000	202,000
Surplus/deficit	62,000	222,000	410,000
Borrowing from bank	-	-	-
Repayment of loan	-	-	-
Interest on loan	-	-	-
Closing cash balance	72,000	232,000	420,000

3. **2019** The balance sheet on 1st January, 2018 and the sales budget of Makalu Manufacturing Co. have been summarized below :

Months	Jan.	Feb.	Mar.	Apr.	May
Sales unit	8,000	9,000	10,000	7,000	8,000

Balance Sheet at 1st January 2018

Liabilities	Rs.	Assets	Rs.
Share capital	2,00,000	Inventory :	
10% debenture	1,30,000	Raw material (18,000 kg)	54,000
Retained earnings	12,000	Finished goods (8,000 units)	72,000
Accounts payable	50,000	Accounts receivable	46,200
Divident payable	8,000	Cash	37,800
		Machinery	1,90,000
	4,00,000		4,00,000

Selling price per unit will be Rs. 12. The sales will be 40% in cash and 60% on credit. The credit sales will be collected, 30% in the month of sales and 70% in the next month of sales. Of the credit sales collected in the same month of sales will enjoy a discount facility of 5%. A minimum balance of cash will be Rs. 30,000 for each month. All expenses except purchase of material will be payable in the month when they become due. Purchase of material will be paid in the next month of purchase. The 10% debenture will retire on 1st January.

The desired ending inventory of finished goods and the raw material will be sufficient to meet next month's sales and production need respectively. One unit of finished product will need 2 kgs of materials and material will cost Rs. 2 per kg. Direct labour cost per unit of output produced will be Rs. 2. The variable manufacturing overhead cost per unit will be Re 1 per unit of output. The fixed manufacturing overhead cost will be Rs. 90,000 p.a. and depreciation of machinery Rs. 1,500 per month.

Short term loan in a multiple of Rs. 10,000 will be available from a bank at an interest rate of 12% p.a. to meet the cash deficiency. Repayment of bank loan will be in a multiple of Rs. 1,000. Loan repayment and sale of finished products will be FIFO basis. The interest will be payable for the amount of loan repaid.

Required:

- Production budget for three months ending March
- Material purchase budget for three months ending March
- Cash collection and disbursement budget for three months ending of March.
- Budgeted income statement for March end.
- Budgeted Balance sheet on 31st March 2018.

Solution:

a.

**.... Company
Production Budget**

For the period of January to March

Details	Planned Sales Units	Desired Ending Inventory of FG	Total Need	Beginning Inventory of FG	Planned Production in Unit
References	1 = Input	2 = Input	3 = 1 + 2	4 = Input	5 = 3 - 4
January	8,000	9,000	17,000	8,000B/S*	9,000
February	9,000	10,000	19,000	9,000	10,000
March	10,000	7,000*	17,000	10,000	7,000
Total	27,000	7,000*	34,000	8,000*	26,000
April	7,000	8,000	15,000	7,000	8,000

Working Notes:

Material requirement = Planned Production in Units × stander usage rate
= Planned Production Unit × Standard Usage Rate

January = 9,000 units × 2 kg = 18,000 kg

February = 10,000 units × 2 kg = 20,000 kg

March = 7,000 units × 2 kg = 14,000 kg

April = 8,000 units × 2 kg = 16,000 kg

b. Manufacture Company
Raw material Purchased Budgeted
For the period of January To March

Details Period	material Requirement	Desired Ending Inventory of RM	Total need	Beginning Inventory of RM	Planned Purchase	
					KG	Amounts @ Rs.2
Reference	1 = WN.	2 = Input	3 = 1 + 2	4 = Input	5 = 3 - 4	6 = 5 × rate
January	18,000	20,000	38,000	B/S 18,000	20,000	40,000
February	20,000	14,000	34,000	20,000	14,000	28,000
March	14,000	16,000	30,000	14,000	16,000	a/c*32,000
Total	52,000	*16,000	68,000	18,000	50,000	100,000
April	16,000					

Sales policy 100% = $\left[\begin{array}{l} \text{Cash 40\%} \\ \text{Credit 60\%} \end{array} \right] \rightarrow \left[\begin{array}{l} 30\% \rightarrow 5\% \text{ discount} \\ 70\% \text{ next month} \end{array} \right]$

Months	SR (Sales unit × SPPU)	Cash sales 40%	Credit sales 60%
January	96,000	38,400	57,600
February	1,08,000	43,200	64,800
March	120,000	48,000	72,000

Months	Credit sale 100%	Cash collection in same month (30%)	Cash collection in next month (70%)
January	57,600	17,280	40,320
February	64,800	19,440	45,360
March	72,000	21,600	50,400 A/R

Months	30%	5% discount	After discount
January	17,280	864	16,416
February	19,440	972	18,468
March	21,600	1080	20,520

Variable cost per unit

Direct material = 1 unit × 2 kg × Rs. 2 = Rs. 4

Direct labour = 1 unit × Rs. 2 = Rs. 2

Variable manufacturing = Rs. 1

Variable selling expenses = Nil

Fixed manufacturing overhead = Rs. 90,000 = $\frac{\text{Rs. 90000}}{12}$ = Rs. 7,500

Cash fixed manufacturing overhead = Rs. 7,500 – Rs. 1,500 = Rs. 6,000

Loan interest = Rs. 31,000 × 0.12 × $\frac{2}{12}$ = Rs. 620

= Rs. 57,000 × 0.12 × $\frac{3}{12}$ = Rs. 1,710

Remaining loan = Rs 110,000 - Rs 31,000 - Rs 57,000 = Rs 22,000

Outstanding interest = Remaining Loan × 0.12 × $\frac{3}{12}$

= Rs. 22,000 × 0.12 × $\frac{3}{12}$ = Rs. 660

Total interest = Rs 620 + Rs 1,710 + Rs 660 = Rs 2,990

Value of Row material consumption

Details	Amount
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Beg balance of raw material @ Rs. 3 × 18,000 kg	54,000
Add: Purchase @ Rs. 2 × 50,000 kg	100,000
Cost of material for use	154,000
Less : Ending balance of raw material @ Rs. 2 × 16,000 kg	32,000
Raw Material Consumption	1,22,000

c.

Manufacture Company
Cash and Disbursement Budget
For the Period of January to March

Details	January	February	March
Opening Cash Balance	37,800	35,816	30,184
Add: Cash Receipts:			
Cash sales	38,400	43,200	48,000
Collection from same months:	16,416	18,468	20,520
Collection from previous months	A/R46,200	40,320	45,360
Total cash receipts	101,016	101,988	113,880
Total Cash Available	138,816	137,804	144,064
Less: Cash Disbursement:			
Payment of account payable	A/p50,000	40,000	28,000
Direct labour @ Rs 2	18,000	20,000	14,000
Payment of variable Manufacturing ohs@ Rs 1	9,000	10,000	7,000
Payment of cash fixed manufacturing	6,000	6,000	6,000
Redemption of debenture	1,30,000	–	–
Total Cash Disbursement	213,000	76,000	55,000
Minimum Cash balance	30,000	30,000	30,000
Total Cash Needed	2,43,000	1,06,000	85,000
Surplus/Deficit	(1,04,184)	31,804	59,064
Borrowing	1,10,000	–	–
Repayment: Principal	–	31,000	57,000
Interest	–	620	1,710
Ending Balance of Cash	35,816	30,184	30,354

d.

..... Company
Budgeted Income Statement

Details	Amounts	Amounts
Net sales revenue @ Rs. 12 × 27,000 units		3,24,000
Less: Variable cost of sales:		
Material (working note)	1,22,000	
Labour @ Rs. 2 × 26,000 units	52,000	
V.Manufacturing ohs @ Rs. 1 × 26000 units	26,000	
Variable cost of production	2,00,000	
Add: Opening inventory @ Rs. 9 × 8000 units	72,000	
Variable cost of goods available for sales	2,72,000	
Less: Closing inventory @ Rs. 7 × 7000 units	49,000	
Variable cost of goods sold	2,23,000	
Add : Variable selling and administrative	Nil	2,23,000
Contribution margin		1,01,000
Less : Fixed and other cost		
Fixed manufacturing 7,500 × 3 months	22,500	
Discount (864 + 972 + 1080)	2,916	25,416
Earning before tax and interest		75,584
Less : Interest expenses		2,990
Net income before tax		72,594
Less : Tax expenses		–

Net profit after tax	72,594
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Budgeted Balance Sheet
As on

Liabilities & Capital	Amounts	Assets	Amounts
Share capital	2,00,000	Inventory :	
10% debenture	-	Raw material (16,000 kg)	32,000
Retained earnings (12,000 + 72,594)	84,594	Finished goods (7,000 units)	49,000
Accounts payable	32,000	Accounts receivable	50,400
Dividend payable	8,000	Cash	30,354
Short term loan	22,000	Machinery	1,90,000
Outstanding interest	660	Less: acc depreciation	4,500
	347,254		1,85,500
			347,254

4. **2019 Make up** The Balance Sheet as end of September of 2016 of an industry is given below:

Liabilities	Rs.	Assets	Rs.
Capital	5,00,000	Building and Machine	4,00,000
Profit and Loss Account	2,20,000	Inventory:	
Amount due for Merchandise	2,25,000	Merchandise (60,500 kg @ Rs. 2/kg)	1,21,000
Amount Payable Machine		Finished Goods (4,800 units @ Rs 18.)	86,400
Supplier (Due in October)	66,600		
Outstanding Wages	1,24,800	Account Receivable from Customer:	
		Sales of August	1,84,000
		Sales of September	3,20,000
		Cash in Hand	25,000
	11,36,400		11,36,400

The actual sales for August & September and forecasted sales from October to February are given for necessary consideration.

Months	August	September	October	November	December	January	February
Sales in units	23,000	20,000	24,000	25,000	24,000	25,000	25,000

Sales: Selling price per unit will be Rs. 20. All sales are on credit. 20% realizes in the month of sale on which 2% discount will be allowed. Balance will be collected equally in two installments following month of sales on monthly basis.

Purchases: One unit of finished goods will require 5 kg of merchandise. The merchandise will cost Rs. 2 per kg. Merchandises are procured on credit, payable after the month of purchase.

Wage: Wage payment for one unit of finished goods will be Rs. 6 and which will be paid in the following month.

Overhead: Payment will be made in the same month. Variable manufacturing will be Rs. 2 per unit. Fixed manufacturing cost for one year will be Rs. 1,20,000.

Inventory Policy: Merchandise - 50% of the subsequent month's requirement.

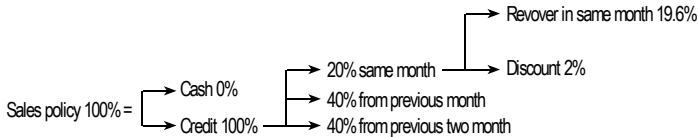
Finished Goods-20% of the subsequent month's sales.

Minimum Cash Balance expected will be Rs. 25,000.

A commercial bank has given approval to avail loan to the industry in the multiple of Rs. 5,000 @ 12% p.a. The loan provides provision to reimburse in the multiple of Rs. 1,000

Required:

- Production Budget for three months ending December 2016
- Raw materials Purchase Budget for three months ending December 2016.
- Cash Budget for three months ending December 201
- Budgeted Income Statement for three months ending December 2016.
- Budgeted Balance Sheet as on end of December 2016.



**.... Company
Production Budget**

For the period of October to December

Period \ Details	Planned Sales Units	Desired End Inventory of FG	Total Need	Beg Inventory of FG	Planned Prod ⁿ in Unit
References	1 = Input	2 = Input	3 = 1 + 2	4 = Input	5 = 3 - 4
October	24,000	5,000	29,000	B/S 4,800	24,200
November	25,000	4,800	29,800	5,000	24,800
December	24,000	5,000*	29,000	4,800	24,200
Total	73,000	5,000*	78,000	4,800*	73,200
January	25,000	5,000	30,000	5,000	25,000

Working Notes:

Material requirement = Planned Production Unit × Standard Usage Rate

October = 24,200 units × 5 kg = 121,000 kg

November = 24,800 units × 5 kg = 124,000 kg

December = 24,200 units × 5 kg = 121,000 kg

January = 25,000 units × 5 kg = 125,000 kg

b. Manufacture Company

Raw material Purchased Budgeted

For the period of October to December

Details Period	material Requirement	Desired Ending Inventory of RM	Total need	Beginning Inventory of RM	Planned Purchase	
					KG	Amount @ Rs.2
Reference	1 = WN.	2 = Input	3= 1+2	4 = Input	5 = 3 - 4	6 = 5 × rate
October	1,21,000	62,000	1,83,000	B/S60,500*	1,22,500	2,45,000
November	1,24,000	60,500	1,84,500	62,000	1,22,500	2,45,000
December	1,21,000	62,500*	1,83,500	60,500	1,23,000	2,46,000* A/P
Total	3,66,000	62,500*	4,28,500	60,500*	3,68,000	7,36,000
January	1,25,000					

Months	SR= (Sales unit × SPPU)	Credit collection in same month 20%	collection in previous month 40%	collection in next previous month 40%
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August	460,000	92000	184000	184,000
September	400,000	80000	160,000	160,000
October	4,80,000	96,000	1,92,000	192,000
November	5,00,000	1,00,000	2,00,000	2,00,000
December	4,80,000	96,000	1,92,000	1,92,000

Months	20%	2% Discount	After discount
October	96,000	1,920	94,080
November	1,00,000	2,000	98,000
December	96,000	1,920	94,080

Variable cost per units

Direct material = 1 unit × 5 kg × Rs. 2 = Rs. 10

Direct labour = 1 unit × Rs. 6 = Rs. 6

Variable manufacturing = Rs. 2

Variable selling expenses = Nil

Fixed manufacturing overhead = $\frac{\text{Rs. } 120000}{12}$ = Rs. 10,000

Cast fixed manufacturing overhead = 10,000 – Nil = Rs. 10,000

Interest of short loan = Rs 3,000 × 0.12 × $\frac{2}{12}$ = Rs 60

Interest of short loan = 33,000 × 0.12 × $\frac{3}{12}$ = Rs 990

Remaining loan =Rs 40,000- Rs 3000 – Rs 33,000=Rs 4,000

Outstanding interest =Rs 4,000 × 0.12 × $\frac{3}{12}$ = Rs 120

Value of raw material consumption

Beg balance of raw material @ Rs. 2 × 60,500 kg	1,21,000
Add: Purchase @ Rs. 2 × 3,68,000 kg	7,36,000
Cost of material for use	8,57,000
Less : Ending balance of raw material @ Rs. 2 × 62,500 kg	1,25,000
Raw Material Consumption	7,32,000

Manufacture Company

Cash and Disbursement Budget

For the Period of October to December

Details	October	November	December
Opening Cash Balance	25,000	28,280	25,420
Add: Cash Receipts:			
Collection from same month	94,080	98,000	94,080
Collection from previous months	1,60,000	1,92,000	2,00,000
Collection from two previous months	1,84,000	1,60,000	1,92,000
Total cash receipts	4,38,080	4,50,000	4,86,080
Total Cash Available	4,63,080	4,78,280	511,500
Less: Cash Disbursement			
Payment of account payable	2,25,000	2,45,000	2,45,000
Direct labour@Rs 6	1,24,800	1,45,200	1,48,800
Payment of variable Mfg ohs@Rs 2	48,400	49,600	48,400
Payment of fixed mfg ohs	10,000	10,000	10,000
Payment to supplier	66,600	-	-
Total Cash Disbursement	4,74,800	4,49,800	4,52,200
Minimum Cash balance	25,000	25,000	25,000
Total Cash Needed	4,99,800	4,74,800	4,77,200
Surplus/Deficit	(36,720)	3,480	34,300
Borrowing	40,000	-	-

Repayment: Principal	-	3,000	33,000
Interest	-	60	990
Ending Balance of Cash	28,280	25,420	25,310

d. Company

Budgeted Income Statement
for the period of October to December

Details	Amounts	Amounts
Net sales revenue @ Rs. 20 × 73,000 units		14,60,000
Less: Variable cost of sales:		
Direct material @ Rs. 10 × 73,200 units	7,32,000	
Direct labour @ Rs. 6 × 73,200 units	4,39,200	
V. Mfg overhead @ Rs. 2 × 73,200 units	1,46,400	
Variable cost of production	13,17,600	
Add: Beg. inventory @ Rs. 18 × 4,800 units	86,400	
Variable cost of goods available for sales	14,04,000	
Less: end. inventory @ Rs. 18 × 5000 units	90,000	
Variable cost of goods sold	13,14,000	
Add: Variable selling and administrative	-	13,14,000
Contribution margin		1,46,000
Less: Fixed and other cost		
Fixed manufacturing	30,000	
Discount (1,920 + 2,000 + 1,920)	5,840	35,840
Earning before tax and interest		1,10,160
Less: Interest expenses (60+990 + 120)		1,170
Net income before tax		108,990
Less: Tax expenses		-
Net profit after tax		108,990

Working note

P/L = Rs 220,000 + Rs 108990 = Rs 328,990

Budgeted Balance Sheet

As on December

Liabilities	Amount	Assets	Amount
Capital	5,00,000	Building and Machine	4,00,000
P/L Account	3,28,990	Inventory:	
Amount due for Merchandise	2,46,000	Merchandise (62,500 kg @ Rs. 2/kg)	125,000
		Finished Goods (5,000 units @ Rs. 18)	90,000
Outstanding Wages	1,45,200		
Short term loan	4,000	Account Receivable from Customer:	
outstanding interest	120	Sales of November	200,000
		Sales of December	3,84,000
		Cash in Hand	25,310
	12,24,310		12,24,310

5. **2018** The following balance sheet of a trading company is provided as on 31st December, 2017.

Liabilities and Equities	Amount	Assets	Amount
Share capital	12,00,000	Cash Balance	6,00,000
Retained earnings	9,00,000	Account Receivable	5,00,000
10% Loan	5,00,000	Inventory	5,50,000
Account Payable	6,00,000	Plant and Machinery	15,50,000
Total	32,00,000	Total	32,00,000

Forecasted sales and purchases details are provided below for the first three month of the year 2018:

	January	February	March
Budgeted Sales (Rs)	16,00,000	20,00,000	25,00,000

Expected Purchases (Rs)	12,00,000	20,00,000	18,00,000
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Gross profit margin 50% on sales.

70% of the sales are cash and 60% of the purchase are cash purchases. All the credits i.e. sales or purchases are cleared in next month. Salaries and wages Rs 20,000 per month paid in the same month. Operating expenses Rs 80,000 includes Rs 16,000 depreciation per month. All the expenses are paid in the same month when they become due. Loan is paid at the end of march with its interest of three months. Additional plant will be purchased in February for Rs 50,000 cash (Ignore Depreciation). Minimum cash required is Rs 50,000. If there is cash deficiency an overdraft facilities from the standard Chartered Bank Ltd is available at 12% per annum.

Required:

- Cash Budget for Three month ending March
- Budgeted Income Statement for three month ending March
- Budgeted Balance sheet on 31th March

Solution:

Working Note:

Month	Sales Revenue	Cash Sales (70%)	Credit Sales (30%)
January	16,00,000	Rs. 11,20,000	Rs. 4,80,000
February	20,00,000	14,00,000	6,00,000
March	25,00,000	17,50,000	A/R 7,50,000*

Month	Purchase	Cash Purchase (60%)	Credit Purchase (40%)
January	12,00,000	Rs. 7,20,000	Rs. 4,80,000
February	20,00,000	12,00,000	8,00,000
March	18,00,000	10,80,000	A/P 7,20,000*

Salary and wages (Rs. 20,000 × 3) = Rs. 60,000

Operating expenses [(Rs. 80,000 – 16,000) × 3] = Rs. 1,92,000

Purchase of Plant = Rs. 50,000 (February)

Minimum cash balance =Rs. 50,000.

Ending Inventory Beg Inventory + Purchase – Merchandise need
 = 5,50,000 + 50,00,000 – (61,00,000 × 0.5)
 = Rs. 55,50,000 – 30,50,000 = Rs. 25,00,000

Depreciation (16,000 × 3) =Rs. 48,000

a. ... Company

**Cash Collecting and disbursement budget
for the month of January to march 31, 2017**

Details	January	February	March
Beginning cash balance	6,00,000	8,16,000	8,82,000
Add: Cash Receipt:			
Cash Sales	11,20,000	14,00,000	17,50,000
Cash collection from previous from month	5,00,000	4,80,000	6,00,000
Total Cash Receipts	16,20,000	18,80,000	23,50,000
Total Cash Available	22,20,000	26,96,000	32,32,000
Less: Cash Payment Needed:			
Payment of merchandise same month	7,20,000	12,00,000	10,80,000
Payment of account payable	6,00,000	4,80,000	8,00,000

Salary and wages	20,000	20,000	20,000
Operating expenses	64,000	64,000	64,000
Purchase of plant	-	50,000	-
Payment of 10% loan	-	-	5,00,000
Interest on 10% loan	-	-	12,500
Total cash payment	14,04,000	18,14,000	24,76,500
Minimum cash balance	50,000	50,000	50,000
Total cash needed	14,54,000	18,64,000	25,26,500
Surplus deficit	7,66,000	8,32,000	7,05,500
Borrowing	-	-	-
Repayment: Principle	-	-	-
Interest	-	-	-
Ending balance of cash	8,16,000	8,82,000	7,55,500

b.

... Company

**Budgeted Income Statement
for the three month ending march 2018**

Details	Amounts	Amounts
Net sales revenue		61,00,000
Less: Cost of merchandise sold:		
Beginning inventory	5,50,000	
Add: cost of purchase	50,00,000	
Cost of merchandise available for sale	55,50,000	
Less: Ending Inventory	25,00,000	30,50,000
Gross profit(50%)		30,50,000
Less: Operating and other expenses:		
Salary and wages	60,000	
Operating expenses	1,92,000	
Depreciation	48,000	3,00,000
Net income before interest and tax		27,50,000
Less: interest expenses		12,500
Net income before tax		27,37,500
Less: Tax expenses		Nil
Net profit after tax		27,37,500

c.

... Company

**Budget Balance Sheet
as on 31, March 2018**

Capital and liabilities	Amounts	Assets	Amounts
Share Capital	12,00,000	Cash Balance	7,55,500
Retain Earning (9,00,000+ 27,37,500)	36,37,500	Account receivable	7,50,000
Account payable	7,20,000	Inventory	25,00,000
		Plant and Machinery (15,50,000 – 48,000 + 50,000)	15,52,000
	55,57,500		55,57,500

- 6.
- 2017 Apr.-May Q. No. 5**
- The balance sheet of a company as on 31st Ashad last year was:

Balance Sheet as on 31st Ashad, 2072

Liabilities	Amount	Assets	Amount
Accounts payables	70,000	Cash	25,000

Operating expenses payable	20,000	Inventories	140,000
Loan	292,000	Accounts receivables	134,000
Shareholder's equity	200,000	Fixed assets	283,000
Total	582,000	Total	582,000

Gross profit averages 30 % of sales. The company has a policy of maintaining sufficient inventory to meet the next month's sales. Experience shows that 50 % purchases are paid in the month of purchase and balance in the next month of purchase. The actual and budgeted sales for different months are as under:

Months	Sales (Rs.)
Jestha	180,000
Ashad	200,000
Shrawan	200,000
Bhadra	180,000
Ashoj	160,000
Kartik	190,000

60 % of sales are collected in the month of sales, 30 % in the next month and remaining 10 % is collected in the following month of sales. Operating expenses are 10 % of sales which are payable after one month. Selling and distribution expenses are 5 % of sales which is payable in the same month. Company is going to purchase a machine in the month of Shrawan costing Rs. 200,000. The company must maintain a minimum cash balance of Rs. 10,000. An open line of credit is available at a local branch of Nepal Bangladesh Bank Ltd. All borrowing is line at the beginning of a month, and all payments are made at the end of a month. Borrowings are repayments of principal must be made in multiple of Rs. 1,000. Loan repayments are on a FIFO basis, interest is paid only at the time of repayment of principal. However, any interest on unpaid loans should be properly accrued when statements are prepared. The interest rate is 12 % per annum.

Required:

- Purchase budget for three month ending Ashoj.
- Cash receipts and disbursement budget for three months ending Ashoj.
- Projected income statement for the quarter ending Ashoj 2072.
- Projected balance sheet as of Ashoj 2072.

Solution:

Working Note:

Cost to sales ratio = 1 - Gross profit ratio
= 1 - 0.30 = 0.70

Merchandise need = Planned Sales Revenue × Cost to sales ratio

Sharwan = Rs. 2,00,000 × 0.70 = Rs. 1,40,000

Bhadra = Rs. 1,80,000 × 0.70 = Rs. 1,26,000

Ashoj = Rs. 1,60,000 × 0.70 = Rs. 1,12,000

Kartik = Rs. 1,90,000 × 0.70 = Rs. 1,33,000

... Company

**Merchandise Purchase Budget
For the period Sharwan to Ashoj**

Details Months	Merchandise Need	Desired ending inventory	Total need	Beginning inventory	Planned purchase
Reference	1 = W/N	2 = Input	3 = 1 + 2	4 = Input	5 = 3 - 4
Sharwan	1,40,000	1,26,000	2,66,000	B/S 1,40,000*	1,26,000
Bhadra	1,26,000	1,12,000	2,38,000	1,26,000	1,12,000

Ashoj	1,12,000	1,33,000*	2,45,000	1,12,000	1,33,000
Total	3,78,000	1,33,000*	5,11,000	1,40,000*	3,71,000

... Company

**Operating expenses budget
for the period of Sharwan to Ashoj**

Months \ Details	Sales Revenue	Variable cost @ 15%	Fixed cost	Total cost
Reference	1= input	2 = 1× rate	3 = input	4 = 2 +3
Sharwan	2,00,000	30,000	-	30,000
Bhadra	1,80,000	27,000	-	27,000
Ashoj	1,60,000	24,000	-	24,000
Total	5,40,000	81,000	-	81,000

Months	Sales Revenue	same month 60%	previous month 30%	next previous month 10%
Jestha	180,000	108000	54000	18,000
Ashad	200,000	120000	60,000	20,000
Shrawan	200,000	120,000	60,000	20,000
Bhadra	180,000	1,08,000	54,000	18,000
Ashoj	160,000	96,000	48,000	16,000

Remaining old A/R = Rs 134,000 – Rs 60,000 – Rs 20,000 – Rs 18,000
= Rs 36,000

ii.

... Company

**Cash collection and Disbursement budget
for the period of Sharwan to Ashoj**

Details	Shrawan	Bhadra	Ashoj
Beginning balance of cash	25,000	10,000	10,220
Add Cash received:			
Collection for same months:	120,000	108,000	96,000
Collection from previous months	60,000	60,000	54,000
Collection from Two previous months	18,000	20,000	20,000
Total cash receipts	1,98,000	1,88,000	1,70,000
Total cash available	2,23,000	1,98,000	1,80,220
Less: Cash disbursements:			
Payment of same month purchase	63,000	56,000	66,500
Payment of account payable	70,000	63,000	56,000
Payment of Operating expenses	20,000	20,000	18,000
Payment of Selling & dist expenses	10,000	9,000	8,000
Purchase of machine	200,000	-	-
Total cash disbursement	363,000	148,000	148,500
Minimum cash balance	10,000	10,000	10,000
Total cash needed	3,73,000	1,58,000	1,58,500
Net cash surplus/deficit	(1,50,000)	40,000	21,720
Borrowing	1,50,000	-	-
Repayment: Principle	-	39,000	21,000
Interest	-	780	630
Closing cash balance	10,000	10,220	10,090

iii.

... Company

**Projected income statement
for the quarter ending Ashoj 2072**

Detail	Amount	Amount
Net Sales revenue		540,000
Less: Cost of goods sold		
Beginning inventory	1,40,000	
Add: Net cost of purchase	3,71,000	
Net cost of goods available for sales	5,11,000	
Less: Ending inventory	1,33,000	378,000
Gross margin		162,000
Less: Operating expenses:		
Operating expenses @ 10%	54,000	
Selling & distribution expenses @ 5%	27,000	81,000
Net income before interest & tax		81,000
Less: Interest expenses (780 + 630 + 2,700)		4,110
Net Income before tax		76,890
Less: Tax expenses		-
Net income after tax		76,890

iv. **... Company**
Projected balance sheet
as of Ashoj 2072

Capital & liabilities	Amount	Assets	Amount
Shareholder's capital	2,00,000	Fixed assets	283,000
Retained earnings	76,890	Add: new machine	<u>200,000</u>
Loan	2,92,000	Inventory	1,33,000
Short-term loan	90,000	Accounts receivables	82,000
Outstanding interest	2700	Add: Old account receivables	<u>36,000</u>
Accounts payables	66,500	Cash at bank	10,090
Operating expenses payable	16,000		
	7,44,090		7,44,090

Working note:

Account payable on credit purchase Ashoj = Rs 1,33,000 × 50% = Rs 66,500

Outstanding expenses

Ashoj sales Rs 1,60,000 × 10% =Rs 16,000

Loan repayment on Bhadra

Principal and interest = 100 + 2 = 102%

Principal repaid can be made = $\frac{\text{Rs } 40,000}{102} \times 100 = \text{Rs } 39216 \sim 39000$

Interest paid = Rs 39000 × 0.12 × $\frac{2}{12}$ = Rs.

Loan repayment on Ashoj780

Principal and interest = 100 + 3 = 103%

Principal repaid can be made = $\frac{21720}{103} \times 100 = 21087 \sim 21000$

Interest paid = Rs 21,000 × 0.12 × $\frac{3}{12}$ = Rs. 630

Outstanding interest (O/S) = Rs 90,000 × 0.12 × $\frac{3}{12}$ = Rs. 2700

Note: Information about the loan which is given in liability side of balance sheet is not given in the question so it is assume that the interest on loan is 12% per annum

7. **2016 July Q. No. 5** The balance sheet of a company as on 31st December last year was under:

Liabilities	Rs.	Assets	Rs.
Share capital	4,00,000	Fixed assets	1,50,000
Retained earnings	60,000	Inventory	2,70,000
Accounts payable	2,70,000	Accounts receivables	2,80,000
		Cash in hand	30,000
Total	7,30,000	Total	7,30,000

Additional information:

Actual and budgeted sales for different months are:

Months	November	December	January	February	March	April
Actual sales (Rs.)	500,000	500,000	-	-	-	-
Budgeted sales (Rs.)			450,000	400,000	500,000	450,000

Sales are 20% for cash and 80% credit on 50% of credit sales will be realized in the month of sale, 30% in the next month of sales and the balance in the next following month of sales.

- Gross profit average 40% of sales. Operating expenses and selling expenses will be 15% and 5% of sales respectively, which will be paid at the time when they are due.
- Desired ending balance of inventory at the end of each month will be equal to the following month sales need. All purchase will be paid in the next month of purchase.
- Fixed assets costing Rs. 150,000 will be acquired at the beginning of the January. The company has a policy of maintaining cash balance of Rs. 25,000 each month. The company has entered into agreement with bank for a soft loan at 12% per annum to meet cash deficiency. The borrowing and repayment will be in multiple of Rs. 5,000. Interest will be paid on the amount of loan repayment. Depreciation per year will be 10%.

Required:

- i. Purchase budget for three month ending March
- ii. Cash budget for three month ending March
- iii. Budgeted income statement
- iv. Budgeted balance sheet at the end of March

Solution:**Working Note:**

Cost to sales ratio	= 1 - gross profit ratio = 1 - 0.40 = 0.60
Merchandise need	= Planned Sales Revenue × Cost to sales ratio
January	= Rs. 4,50,000 × 0.60 = Rs. 2,70,000
February	= Rs. 4,00,000 × 0.60 = Rs. 2,40,000
March	= Rs. 5,00,000 × 0.60 = Rs. 3,00,000
April	= Rs. 4,50,000 × 0.60 = Rs. 2,70,000

... Company

**Merchandise Purchase Budget
For the period January to March**

Details	Merchandise Need	Desired ending inventory	Total need	Beginning inventory	Planned purchase
Reference	1 = W/N	2 = Input	3 = 1 + 2	4 = Input	5 = 3 - 4
January	2,70,000	2,40,000	5,10,000	2,70,000	2,40,000
February	2,40,000	3,00,000	5,40,000	2,40,000	3,00,000
March	3,00,000	2,70,000	5,70,000	3,00,000	a/p*2,70,000

Total	8,10,000	2,70,000	10,80,000	2,70,000	8,10,000
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i. Working Note:

Month	Sales revenue	Cash sales(20%)	Credit80%
November	5,00,000	1,00,000	4,00,000
December	5,00,000	1,00,000	4,00,000
January	4,50,000	90,000	3,60,000
February	4,00,000	80,000	3,20,000
March	5,00,000	1,00,000	4,00,000

Credit sales	Credit sales	Recover 50% in same month	Recover 30% in previous month	Recover 20% in previous next month
November	400,000	2,00,000	1,20,000	80,000
December	400,000	2,00,000	120,000	80,000
January	360,000	1,80,000	108,000	72,000
February	320,000	1,60,000	96,000	64,000
March	400,000	2,00,000	1,20,000	80,000

Account receivable =Rs 120,000 + Rs 64,000 + Rs 80,000 = Rs 2,64,000

Interest = Rs 35,000 × 12% × $\frac{3}{2}$ = Rs 700

Depreciation = Rs 300,000 × 10% × $\frac{3}{12}$ = Rs 7,500

... Company

Cash collection and disbursement budget

For the period of January to March

Particulars	January	February	March
Beginning balance of cash	30,000	25,000	97,300
Add: Cash received:			
Cash sales	90,000	80,000	100,000
Collection from same months:	180,000	160,000	200,000
Collection from previous months:	120,000	108,000	96,000
Collection from two previous months:	80,000	80,000	72,000
Total cash received	4,70,000	4,28,000	4,68,000
Total cash available	500,000	453,000	565,300
Less: Cash disbursement:			
Payment for creditors (last month)	270,000	240,000	300,000
Payment of operating expenses	67,500	60,000	75,000
Payment of selling expenses	22,500	20,000	25,000
Purchase of fixed assets	150,000	–	–
Total cash disbursement	5,10,000	3,20,000	4,00,000
Minimum cash balance	25,000	25,000	25,000
Total cash needed	5,35,000	3,45,000	4,25,000
Surplus/deficit	(35,000)	1,08,000	1,40,300
Borrowing of short term bank loan	35,000	–	–
Re-payment: Principle	–	35,000	–
Interest	–	700	–
Closing cash balance	25,000	97,300	1,65,300

iii.

..... Company

Budgeted income statement

for the period ended March ...

Details	Amount	Amount
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Net sales revenue		1,350,000
Less: Cost of goods sold @ 60%		
Beg. Inventory	270,000	
Add: Net cost of Purchase	810,000	
Net cost of purchase	1080,000	
Less: Ending Inventory	270,000	810,000
Gross profit		540,000
Less: Operating expenses:		
Operating expenses @ 15%	202,500	
Selling expenses @ 5%	67,500	
Depreciation (300,000 × 10% × 3/12)	7,500	277,500
Net income before interest		262,500
Less: Interest		700
Net Income before tax		2,61,800

iv.

.... Company
Budgeted balance sheet
as on 31 March

Capital & liabilities	Amount	Assets	Amount
Share capital	4,00,000	Fixed Assets 300,000	
Retained earnings (60,000+2,61,800)	3,21,800	Less: Depreciation <u>7,500</u>	2,92,500
Accounts payable	2,70,000	Inventory	2,70,000
		Accounts receivables	2,64,000
		Cash in hand	1,65,300
	9,91,800		9,91,800

8. **2016 Aug.-Sept. Q. No.** The total budgeted sales of a company during the first five months of the current year is 80,000 units and percentage of sales is 15 %, 25 %, 30 %, 20 % and 10 % of the budgeted sales units in each of fifth month. An increase of 20 % in present selling price of Rs. 25 per unit is expected during the current year. Opening balance sheet for the current year is given below.

Liabilities and capital	Amount	Assets	Amount
Share capital	850,000	Inventory:	
Retained earnings	200,000	Finished goods 12,000 units	180,000
Bills payables	150,000	Raw materials 60,000 units	180,000
Loan (Payable monthly installments 10,000 with interest @ 18% per annum)	200,000	Net fixed assets	870,000
		Accounts receivables	130,000
		Cash	40,000
Total	1400,000	Total	1400,000

Additional Information:

- A product consumes 3 units of material @ Rs. 3 per unit and requires 2 hours of direct labor @ Rs. 1.5 per hour.
- Wages and expenses are paid at the end of the month.
- Company has a policy of keeping finished stock inventory equal to next month's sales requirement and inventory of raw materials to meet the production requirement of the next months.
- Cash sales amount to 50 % of sales and credit sales will be collected after one month of sales.
- Suppliers allowed one month's credit period.
- Payment of Rs. 300,000 for the purchase of machine is due to third month.

- Monthly indirect expenses includes:

Details	Fixed	Variable
Indirect material and labour	Rs. 5000	Rs. 1.0 per unit
Establishment charges	20,000	Rs. 0.5 per unit produced
Selling and distribution expenses	40,000	5% of sales
Depreciation	15,000	

Required:

- Sales budget
- Production budget
- Cash budget
- Budgeted income statement
- Budgeted Balance sheet

Solution:

Working note:

Expected selling price per unit = Rs. 25 + 20% of Rs. 25 = Rs. 30

Months	Total sales in units	Percentage	Sales unit
Reference	1 = Input	2 = Input	3 = 1 × 2 Input
January	80,000	15	12,000
February	80,000	25	20,000
March	80,000	30	24,000
April	80,000	20	16,000
May	80,000	10	8,000

i.

.... Company
Sales Budget, by Product & by period
For the period of January to March,

Months	Sales in Units	Total amount@ Rs 30
Reference	1 = input	2 = 1 × SPPU
January	12,000	3,60,000
February	20,000	6,00,000
March	24,000	7,20,000
Total	56,000	16,80,000
April	16,000	4,80,000
May	8,000	2,40,000

.... Company
Production Budget
For the period of January to March

Period	Planned Sales Units	Desired Ending Inventory of FG	Total Need	Beginning Inventory of FG	Planned Production in Unit
Reference	1 = Input	2 = Input	3 = 1+2	4 = Input	5 = 3-4
January	12,000	20,000	32,000	B/S12,000*	20,000
February	20,000	24,000	44,000	20,000	24,000
March	24,000	16,000*	40,000	24,000	16,000
Total	56,000	16,000*	72,000	12,000*	60,000
April	16,000	8,000	24,000	16,000	8,000

Working Notes:

Material requirement = Plant Production Unit × Standard Usage Rate
 January = 20,000 Units × 3 = 60,000 units

February	=	24,000 Units × 3 = 72,000 units
March	=	16,000 Units × 3 = 48,000 units
April	=	8,000 Units × 3 = 24,000 units

Manufacture Company
Raw material Purchased Budgeted
For the period of January To March

Period \ Details	Raw material Requirement	Desired Ending Inventory of RM	Total Units	Beginning Inventory of RM	Planned Purchase	
					Units	Amounts @Rs.3
Reference	1 = WN	2 = Input	3 = 1+2	4 = Input	5 = 3-4	6=5 × rate
January	60,000	72,000	132,000	B/S60,000	72,000	2,16,000
February	72,000	48,000	1,20,000	72,000	48,000	1,44,000
March	48,000	24,000	72,000	48,000	24,000	72,000 A/P
Total	1,80,000	24,000	2,04,000	60,000	1,44,000	4,32,000

iii.

.... Company
Cash Collection and Disbursement Budget
For the period of January to March

Particulars	Jan	Feb	March
Beginning balance of cash balance	40,000	40,000	61,370
Add: Cash received:			
Cash sales	180,000	300,000	360,000
Collection from customers previous month	A/R130,000	180,000	300,000
Total cash received	3,10,000	4,80,000	6,60,000
Total cash available (A)	3,50,000	520,000	7,21,370
Less: Cash disbursement:			
Payment to Account Payable	A/P150,000	216,000	144,000
Payment of wages @ Rs. 3	60,000	72,000	48,000
Payment of variable mfg. exp ⁿ @ Rs. 1.5	30,000	36,000	24,000
Payment of fixed manufacturing expenses	25,000	25,000	25,000
Payment of v: selling & dist ⁿ . exp ⁿ @ 5%	18,000	30,000	36,000
Payment fixed selling & dist exp ⁿ	40,000	40,000	40,000
Purchase of machine	—	—	300,000
Loan installment	10,000	10,000	10,000
Interest on loan installment paid	3,000	2,850	2,700
Total cash disbursement	3,36,000	4,31,850	6,29,700
Minimum cash balance	40,000	40,000	40,000
Total cash needed	3,76,000	4,71,850	6,69,700
Surplus/Deficit	(26,000)	48,150	51,670
Borrowing	26,000	—	—
Repayment: Principal	—	(26,000)	—
Interest	—	(780)	—
Ending balance of cash	40,000	61,370	91,670

Working note

$$\text{Interest 1}^{\text{st}} = \text{Rs } 200,000 \times 0.18 \times \frac{1}{12} = \text{Rs } 3,000$$

$$\text{Interest 2}^{\text{nd}} = \text{Rs } 190,000 \times 0.18 \times \frac{1}{12} = \text{Rs } 2,850$$

$$\text{Interest 3}^{\text{rd}} = \text{Rs } 180,000 \times 0.18 \times \frac{1}{12} = \text{Rs } 2,700$$

iv.

.... Company
Budget Income Statement
For the period of January to March

Particulars	Amount	Amount
Net sales revenue @ Rs. 30 × 56,000 units		16,80,000
Less: Variable cost of sales:		

Direct material @ Rs. 9 × 60,000 units	540,000	
Direct wages @ Rs. 3 × 60,000 units	180,000	
Variable mfg exp ⁿ @ Rs. 1.50 × 60,000 units	90,000	
Variable cost of production	8,10,000	
Add: Opening inventory (B/S)	180,000	
Variable cost of goods available for sale	9,90,000	
Less: Closing inventory @ Rs. 13.50 × 16,000 units	2,16,000	
Variable cost of sales	774,000	
Add: Variable selling & dist exp ⁿ @ 5%	84,000	8,58,000
Contribution margin		822,000
Less: Fixed & other expenses:		
Fixed manufacturing expenses	120,000	
Fixed selling & distribution expenses	120,000	240,000
Net income before interest & tax		582,000
Less: Interest expenses		9,330
Net Income before tax		572,670
Less: Tax expenses		Nil
Net Income after tax		5,72,670

v. **.... Company**
Budget balance sheet

For the period of on as march

Capital & liabilities	Amount	Assets	Amount
Share capital	8,50,000	Fixed assets	1,170,000
R/E(2,00,000 + 5,72,670)	7,72,670	Less: Depreciation	45,000
Loan (200,000 – 30,000)	1,70,000	Inventory:	
Bills payables	72,000	Finished goods @ Rs. 13.5 × 16,000 unit	2,16,000
		Raw materials @ Rs. 3 × 24,000 units	72,000
		Accounts receivables	3,60,000
		Cash at bank	91,670
	18,64,670		18,64,670

9. **2016 Make Up. Q. No. 5** The balance sheet and other operating budget of a company has been summarized below:

Balance sheet at 31st Dec. 2015

Capital and Liabilities	Amounts (\$)	Assets	Amounts (\$)
Equity share capital	1000,000	Machinery and plant	700,000
Accounts payables	400,000	Merchandise inventory	400,000
Retained earnings	100,000	Accounts receivables	376,000
		Cash at bank	24,000
Total	1500,000	Total	1500,000

Months	Nov.	Dec.	Jan.	Feb.	Mar.	April
Sales in \$	600,000	700,000	800,000	900,000	1000,000	900,000

20% of the sales will be in cash and credit sales will be realized 50% in the month of sales, 30% in the next month of sales and 18% in the following next month of sales and bad debts will amount to 2% of the credit sales. Gross profit 50% of sales. Purchases of merchandise will be paid in the next month of purchase. Administrative and distribution cost other than depreciation of \$ 20,000 will be 25 % of the gross sales value and they will be payable the month when they become due. The company will maintain a minimum cash balance of \$ 20,000 and merchandise inventories sufficient to meet next month's sales needs. The company will buy a machine at a cost of \$ 350,000 on Jan. 1st 2016, and tax payable in the month of March \$ 100,000.

The company has entered into agreement with the NCC Bank for a soft loan to meet cash deficiency. The borrowing will be in multiple of \$ 5,000 and repayment in \$ 1,000. The bank will charge 12% per annum as interest on the amount of loan due.

Required:

- i. Cash collection and disbursement budget for 1st three month 2016.
- ii. Budgeted income statement for 1st three months.
- iii. Budgeted balance sheet on 31st march 2016.

Solution:

Cost to sales Ratio = $1 - \text{Gross profit ratio} = 1 - 0.50 = 0.50$

Merchandise need = planned sales Revenue \times cost to sales ratio

January = \$ 8,00,000 \times 0.50 = \$ 4,00,000

February = \$ 9,00,000 \times 0.5 = \$ 4,50,000

March = \$ 1,00,000 \times 0.5 = \$ 5,00,000

April = \$ 9,00,000 \times 0.5 = \$ 4,50,000

... Company
Merchandise Purchase Budget
For the period January to March

Detail Month	Merchandise Need	Desire Ending Inventory	Total Needed	Beginning Inventory	Planned Purchase
Reference	1 = W. Note	2 = Input	3 = 1 + 2	4 = Input	5 = 3 - 4
January	4,00,000	4,50,000	8,50,000	4,00,000	4,50,000
February	4,50,000	5,00,000	9,50,000	4,50,000	5,00,000
March	5,00,000	4,50,000	9,50,000	5,00,000	A/P 4,50,000
Total	13,50,000	4,50,000	18,00,000	4,00,000	14,00,000

Account payable = 4,50,000

Administration & distribution cost (25% of gross sales value):

January = \$ 8,00,000 \times 0.25 = \$ 2,00,000

February = \$ 9,00,000 \times 0.25 = \$ 2,25,000

March = \$ 10,00,000 \times 0.25 = \$ 2,50,000

Depreciation = \$ 20,000 \times 3 months = \$ 60,000

Purchase of machine = \$ 3,50,000 (Jan. 1st 2016)

Tax payable = \$ 1,00,000 (March)

Minimum cash balance = \$ 20,000

Account Receivable = 2,40,000 + 1,29,600 + 14,400 + 1,44,000 + 16,000
= \$ 5,44,000

Bad debt = \$ 9,600 + \$ 11,200 + 12,800
= \$ 33,600

Interest = Rs 158,000 \times 0.12 \times $\frac{2}{12}$ = Rs 3,160

12% bank loan = \$ 2,15,000 - \$ 1,58,000 = \$ 57,000

Interest = Rs 57,000 \times 0.12 \times $\frac{3}{12}$ = Rs 1710

Interest paid = \$ 3,160 + \$ 1,710 = \$ 4,870

Machinery and plant = \$ 7,00,000 - \$ 60,000 + \$ 3,50,000 = \$ 9,90,000

Working Note:

Month	Sales Revenue	Cash Sales (20%)	Credit sales (80%)
November	6,00,000	1,20,000	4,80,000
December	7,00,000	1,40,000	5,60,000
January	8,00,000	1,60,000	6,40,000
February	9,00,000	1,80,000	7,20,000
March	10,00,000	2,00,000	8,00,000

Months	Credit sales	Same month 50%	Next month 30%	Following next month 18%/20%	Baddebt (2%)
November	4,80,000	2,40,000	1,44,000	86,400	9,600
December	5,60,000	2,80,000	1,68,000	1,00,800	11,200
January	6,40,000	3,20,000	1,92,000	1,15,200	12,800
February	7,20,000	3,60,000	2,16,000	144,000	-
March	8,00,000	4,00,000	2,40,000	160,000	-

a.

... Company

**Cash Collection and Disbursement Budget
for the month of January to March 2016**

Details	January	February	March
Beginning balance of cash	24,000	23,400	20,040
Add: Cash Receipts:			
Cash sales	1,60,000	1,80,000	2,00,000
Collection from same month	3,20,000	3,60,000	4,00,000
Collection from previous month	1,68,000	1,92,000	2,16,000
Collection from two previous month	86,400	1,00,800	1,15,200
Total cash Receipt	7,34,400	8,32,800	9,31,200
Total Cash available	7,58,400	8,56,200	9,51,240
Less: Cash payment / Needed			
Payment of merchandise	4,00,000	4,50,000	5,00,000
Adm and distribution cost	2,00,000	2,25,000	2,50,000
Purchase of machine	3,50,000	-	-
Tax Payment	-	-	1,00,000
Total Cash payment	9,50,000	6,75,000	8,50,000
Minimum cash balance	20,000	20,000	20,000
Total Cash Needed	9,70,000	6,95,000	8,70,000
Surplus (Deficit)	(2,11,600)	1,61,200	81,240
Borrowing	2,15,000	-	-
Re-payment: Principle	-	(1,58,000)	(57,000)
Interest	-	(3,160)	(1,710)
Ending Cash Balance	23,400	20,040	42,530

b.

... Company

**Budgeted Income Statement
for the three month ending march 2016**

Details	Amounts	Amounts
Net sales revenue		27,00,000
Less: Cost of merchandise sold:		
Beginning inventory	4,00,000	
Add: Purchase	14,00,000	
Cost of merchandise available for sale	18,00,000	
Less: Ending Inventory	4,50,000	13,50,000
Gross profit		13,50,000
Less: Operating and other expenses		

Administration and distribution cost @ 25%	6,75,000	
Depreciation	60,000	
Bad debt	33,600	7,68,600
Net income before interest and tax		581,400
Less Interest expenses		4,870
Net income before tax		576,530
Less tax expenses		1,00,000
Net profit After tax		4,76,530

... Company
Budgeted Balance Sheet
as on 31 march 2016

Capital & liabilities	Amounts	Assets	Amounts
Equity Share Capital	10,00,000	Machinery and Plant	1050,000
		Less acc dep ⁿ	<u>60,000</u>
Account payable	4,50,000		9,90,000
Retain earning (1,00,000 + 4,76,530)	5,76,530	Merchandise Inventory	4,50,000
		Account Receivable	5,44,000
		Cash at bank	42,530
	20,26,530		20,26,530

10. **2015 Q. No. 2** The opening balance sheet and other related information necessary to prepare master budget have been given as follows:

The Balance Sheet as of Chaitra 31, 2071

Capital and Liabilities	Rs.	Assets	Rs.
Capital	7,50,000	Fixed assets (at cost)	9,00,000
Profit and loss account	65,000	Inventory	1,80,000
12% debentures (maturing on Baishak 31, 2072)	2,00,000	Receivables	90,000
Accumulated depreciation	1,80,000	Cash	25,000
	11,95,000		11,95,000

The firm maintains minimum cash balance of Rs. 25,000.

The firm has realized Rs. 300,000 sales revenue during Chaitra, 2071 and the sales revenues forecasted for the next four months of the year 2072 are

Months	Forecasted sales revenues
Baishak	Rs. 3,00,000
Jestha	Rs. 3,50,000
Ashad	Rs. 3,50,000
Sharwan	Rs. 400,000

The firm's monthly expenses are as follows:

Salaries	Rs. 25,000
General overhead	Rs. 15,000
Selling expenses	8% of sales

The monthly depreciation charges on the fixed assets would be Rs. 7,500. The firm sells 70% of goods in cash and the rest on credit which will mature after one month of sales. The gross margin of the firm is 40%.

The firm has a policy of maintaining inventory merchandize equal to next month sales need.

All purchases and expenses are paid same month.

The firm's negotiation with the commercial bank allows bank loan in the multiple of Rs. 5,000 to meet cash shortage and repayment in the multiple of Rs. 1,000 @ 12%. Amount of interest are paid for the loan repaid with the repayment amount to a nearest of Rs. 100.

Required:

- i. Cash receipts and disbursements budget for three months ending Ashad.
- ii. Budgeted Income Statement for the three months ending Ashad.
- iii. Budgeted balance Sheet as on Ashad 31

Solution:

Working Note:

Cost to sales Ratio = 1 – Gross margin ratio = 1 – 0.40 = 0.60

Merchandise Need = Planned sales revenue × Cost to Sales ratio.

Baishak = Rs. 3,00,000 × 0.60 = Rs. 1,80,000

Jestha = Rs. 3,50,000 × 0.60 = Rs. 2,10,000

Ashard = Rs. 3,50,000 × 0.60 = Rs. 2,10,000

Sharwan = Rs. 4,00,000 × 0.60 = Rs. 2,40,000

... Company
Merchandise Purchase Budget
for the period of Bashak to Ashard

Month \ Detail	Merchandise Needs	Desire Ending Inventory	Total Need	Beginning Inventory	Plan Purchase
Reference	1 = W. Note	2 = Input	3 = 1 + 2	4 = Input	5 = 3 - 4
Baishak	1,80,000	2,10,000	3,90,000	B/S1,80,000	2,10,000
Jestha	2,10,000	2,10,000	4,20,000	2,10,000	2,10,000
Ashard	2,10,000	2,40,000	4,50,000	2,10,000	2,40,000
Total	6,00,000	2,40,000	8,40,000	1,80,000	6,60,000

Working Note:

Months	Sales Revenue	Cash Sales (70%)	Credit Sales (30%)
Baishak	3,00,000	2,10,000	90,000
Jestha	3,50,000	2,45,000	1,05,000
Ashard	3,50,000	2,45,000	1,05,000

Account Receivables = Rs. 1,05,000

12% bank loan = Rs. 1,80,000 – Rs. 59,000 – Rs. 41,000 = Rs. 80,000

Outstanding interest on loan(*B/S) = $\left[\text{Rs. } 80,000 \times 0.12 \times \frac{3}{12} \right] + \text{Rs. } 10$
= Rs.2,410

Total interest (i/s) = Rs 1,180 +Rs 1,230 +Rs 2,400+Rs 2,00 (DEBENTURE)
= Rs 6,810

a.

... Company
Cash collection and disbursement budget
for the month of baishak to Ashad 2072

Details	Baishak	Jestha	Ashad
Beginning balance of cash:	25,000	29,000	25,800
Add: Cash Receipts:			

Cash sales	2,10,000	2,45,000	2,45,000
Collection from previous month	A/R90,000	90,000	1,05,000
Total Cash Receipts	3,00,000	3,35,000	3,50,000
Total Cash Available	3,25,000	3,64,000	3,75,800
Less: Cash payment needed:			
Payment of merchandise	2,10,000	2,10,000	2,40,000
Salaries	25,000	25,000	25,000
General overhead	15,000	15,000	15,000
Selling expenses	24,000	28,000	28,000
Redemption of debenture with Interest	2,02,000	-	-
Total Cash Payment	4,76,000	2,78,000	3,08,000
Minimum Cash balance	25,000	25,000	25,000
Total Needed cash	5,01,000	3,03,000	3,33,000
Surplus / Deficit	(1,76,000)	61,000	42,800
Borrowing	1,80,000	-	-
Repayment: Principle	-	(59,000)	(41,000)
Interest	-	(1,200)	(1,200)
Ending Cash Balance	29,000	25,800	25,600

b.

... Company
Budgeted Income Statement
for the three months ending Ashad 2072

Details	Amount	Amount
Net sales revenue		10,00,000
Less: Cost of Merchandise sold:		
Beginning Inventory	1,80,000	
Add: Cost of purchase	6,60,000	
Cost of merchandise available for sale	8,40,000	
Less: Ending Inventory	2,40,000	6,00,000
Gross profit		4,00,000
Less: Operating and other expenses:		
Salaries 3 × 25,000	75,000	
General overhead . 3 × 15,000	45,000	
Selling expenses 8%	80,000	
Depreciation 3 × 7,500	22,500	
Interest expenses	6,810	2,29,310
Net profit before tax		1,70,690

c.

... Company
Budgeted Balance Sheet
as on Ashad 31, 2072

Liabilities & owner equity	Amounts	Assets	Amounts
Capital	7,50,000	FixedAssets (gross)	9,00,000
Profit loss Account (65,000 + 1,70,690)	2,35,690	Inventory	2,40,000
12% short term loan	80,000	Receivable	1,05,000
Outstanding interest	2,410	Cash	25,600
Acc dep ⁿ (1,80,000 + 22,500)	2,02,500		
	12,70,600		12,70,600

11. **2075** The information needed for the preparation of master budget has been provided below:

Balance Sheet As on 31st December, 2018

Liabilities	Rs.	Assets	Rs.
Share Capital	8,00,000	Plant and Machinery	6,00,000
Account payable	2,40,000	Investment	1,00,000
Accumulated Depreciation	1,80,000	Account Receivable	2,80,000
Tax Payable (due on March)	20,000	Inventories	2,40,000
Net Profit	20,000	Cash	40,000
Total	12,60,000	Total	12,60,000

Gross profit average 40% of sales. The company has a policy of maintaining sufficient inventory to meet the next month's sales need. Experience shows that all purchases are paid in the next month of purchase.

The actual sales (November and December 2018) and budgeted sales (January to April 2019) are Rs. 25,00,000 which is apportioned on the basis of 20%, 20%, 16%, 14%, 14% and 16% from November to April respectively.

20% sales are for cash and rest on credit out of which 50% of sales are collected in the month of sales, 30% in the next month and remaining 18% is collected next following month of sales and 2% is bad debt. Administrative and selling expenses are 10% of sales which is payable in the same month. Company is going to purchase additional plant during the month of January costing Rs. 1,20,000. During March, Company will issue share capital of Rs. 1,00,000 and sell investment at 10% loss. The company keeps minimum cash balance of Rs. 40,000 each month. If the cash is not sufficient, company can take loan from bank at 9% interest rate per annum.

All the borrowings and payments are made in the multiple of Rs. 5,000 and interest on loan repayment is in the multiple of Rs. 100. Depreciation rate per year will be 15%.

Required:

- Merchandised Purchased Budget for three months ending March, 2019.
- Cash Receipt and Disbursement Budget for three months ending March, 2019.
- Budgeted Income Statement ending March, 2019
- Budgeted Balance Sheet at 31st March, 2019.

Solution:

Months \ Details	Total sales revenue	Percentage	Sales revenue
Reference	1 = Input	2 = Input	3 = 1 × 2 Input
November	25,00,000	20	5,00,000
December	25,00,000	20	5,00,000
January	25,00,000	16	4,00,000
February	25,00,000	14	3,50,000
March	25,00,000	14	3,50,000
April	25,00,000	16	4,00,000

- a. Cost to sales Ratio = 1 – Gross profit ratio = 1 - 0.4 = 0.6

Merchandise need = planned sales Revenue × cost to sales ratio

January = Rs. 4,00,000 × 0.6 = Rs. 2,40,000

February = Rs. 3,50,000 × 0.6 = Rs. 2,10,000

March = Rs. 3,50,000 × 0.6 = Rs. 2,10,000

April = Rs. 4,00,000 × 0.6 = Rs. 2,40,000

... Company

**Merchandise Purchase Budget
for the period of January to March**

Detail \ Month	Merchandise Need	Desire Ending Inventory	Total Needed	Beginning Inventory	Planned Purchase
Reference	1 = W. Note	2 = Input	3 = 1 + 2	4 = Input	5 = 3 - 4
January	2,40,000	2,10,000	4,50,000	B/s2,40,000	2,10,000
February	2,10,000	2,10,000	4,20,000	2,10,000	2,10,000
March	2,10,000	2,40,000	4,50,000	2,10,000	A/P*2,40,000
Total	6,60,000	2,40,000	9,00,000	2,40,000	6,60,000

Working Note:

Month	Sales Revenue	Cash Sales (20%)	Credit sales (80%)
November	5,00,000	1,00,000	4,00,000
December	5,00,000	1,00,000	4,00,000
January	4,00,000	80,000	3,20,000
February	3,50,000	70,000	2,80,000
March	3,50,000	70,000	2,80,000

Months	Credit sales	Same month 50%	Next month 30%	Following next month 18%/20%	Baddebt (2%)
November	4,00,000	2,00,000	1,20,000	72,000	8,000
December	4,00,000	2,00,000	1,20,000	72,000	8,000
January	3,20,000	1,60,000	96,000	57,600	6,400
February	2,80,000	1,40,000	84,000	56,000	-
March	2,80,000	1,40,000	84,000	56,000	-

b.

... Company

**Cash Collection and Disbursement Budget
for the month of January to March 2016**

Details	January	February	March
Beginning balance of cash	40,000	72,000	2,05,000
Add: Cash Receipts:			
Cash sales	80,000	70,000	70,000
Collection from same month	1,60,000	1,40,000	1,40,000
Collection from previous month	1,20,000	96,000	84,000
Collection from two previous month	72,000	72,000	57,600
Sales of investment	-	-	90,000
Issue of share	-	-	1,00,000
Total cash Receipt	4,32,000	3,78,000	5,41,600
Total Cash available	4,72,000	4,50,000	7,46,600
Less: Cash payment / Needed			
Payment of purchase	2,40,000	2,10,000	2,10,000
Adm and distribution cost	40,000	35,000	35,000
Purchase of machine	1,20,000	-	-
Tax Payment	-	-	20,000
Total Cash payment	4,00,000	2,45,000	2,65,000
Minimum cash balance	40,000	40,000	40,000
Total Cash Needed	4,40,000	2,85,000	3,05,000
Surplus or Deficit	32,000	1,65,000	4,41,600
Borrowing	-	-	-
Re-payment: Principle	-	-	-
Interest	-	-	-
Ending Cash Balance	72,000	2,05,000	4,81,600

Administration & distribution cost (10% of gross sales value of same month):

January	= Rs. 4,00,000 × 10% = Rs. 40,000
February	= Rs. 3,50,000 × 10% = Rs. 35,000
March	= Rs. 3,50,000 × 10% = Rs. 35,000

$$\text{Depreciation} = (\text{Rs. } 6,00,000 + \text{Rs. } 1,20,000) \times 15\% \times \frac{3}{12} = \text{Rs. } 27,000$$

Purchase of machine = Rs. 1,20,000

Tax payable = Rs. 20,000

Minimum cash balance = Rs. 40,000

Account Receivable = (Rs. 56,000 + Rs. 86,000 + Rs. 56,000) = Rs. 1,96,000

Bad debt = (Rs. 4,00,000 + Rs. 4,00,000 + Rs. 3,20,000) × 0.02 = Rs. 22,400

12% bank loan = Nil

Interest paid = Nil

Machinery and plant purchase =Rs. 1,20,000

c. ... Company

**Budgeted Income Statement
for the three month ending march 2016**

Details	Amounts	Amounts
Net sales revenue		11,00,000
Less: Cost of merchandise sold:		
Beginning inventory	2,40,000	
Add: Purchase	6,60,000	
Cost of merchandise available for sale	9,00,000	
Less: Ending Inventory	2,40,000	6,60,000
Gross profit		4,40,000
Less: Operating and other expenses		
Adm and distribution cost@ 10%	1,10,000	
Depreciation	27,000	
Interest paid	-	
Loss on investment	10,000	
Bad debts	22,400	1,69,400
Net profit before tax		2,70,600
Less: Tax payment		20,000
Net profit after tax		2,50,600

d. ... Company

Balance Sheet As on 31st March, 2019

Liabilities	Rs.	Assets	Rs.
Share Capital(8,00,000 + 1,00,000)	9,00,000	Plant and Machinery (6,00,000 + 1,20,000)	7,20,000
Account payable	2,40,000	Account Receivable	1,96,000
Accumulated Depreciation (1,80,000 + 27,000)	2,07,000	Inventories	2,40,000
Tax Payable (due on june)	20,000	Cash	4,81,600
Net Profit (20,000 + 2,50,600)	2,70,600		
Total	16,37,600	Total	16,37,600

12. **2074 Q. No. 5** The closing Assets and Liabilities of last year and other information of a company to prepare the master budget for the first three months' ending are given below:

Assets	Rs.	Liabilities	Rs.
Fixed assets	300,000	Shareholder's equity	500,000
Account receivable	392,000	Loan on mortgage	492,000
Inventory	560,000	Account payable	280,000
Cash balance	100,000	Accrued operating expenses	80,000
	13,52,000		13,52,000

Month	Baisakh	Jestha	Ashadh
Beginning balance of cash	100,000	100,000	150,000
Add: Cash receipts:			
Collection from same month	4,80,000	4,32,000	3,84,000
Collection from previous month	2,40,000	2,40,000	2,16,000
Collection from two previous month	72,000	80,000	80,000
Total cash collection	7,92,000	7,52,000	6,80,000
Total cash available	8,92,000	8,52,000	8,30,000
Less: Cash disbursement:			
Payment to same month	2,52,000	2,24,000	2,66,000
Payment to account payable	2,80,000	2,52,000	2,24,000
Payment of O/s operating exp ⁿ	80,000	80,000	72,000
Payment of selling expenses	40,000	36,000	32,000
Purchases of machine	2,00,000	–	–
Total cash disbursement	8,52,000	5,92,000	5,94,000
Minimum cash balance	100,000	100,000	100,000
Total cash needed	9,52,000	6,92,000	6,94,000
Surplus/deficit	(60,000)	1,60,000	1,36,000
Borrowing	60,000	–	–
Repayment Princial	Nil	(60,000)	Nil
Interest on loan paid	Nil	(1,200)	Nil
Closing cash balance	1,00,000	1,50,000	1,50,000
Investment in security	Nil	48,800	86,000

... Company

Budgeted Income

Statement for 3 month ending Ashadh

Details	Amount	Amount
Budgeted sales Revenue		21,60,000
Less Cost of merchandise sold		
Beginning inventory	5,60,000	
Add: Net cost of purchase	14,84,000	
Net cost of goods available for sale	20,44,000	
Less: Ending inventory	5,32,000	15,12,000
Gross profit		6,48,000
Less: Operating and other expenses:		
Operating expenses @ 10%	2,16,000	
Selling expenses @ 5%	1,08,000	324,000
Net income before interest and tax		324,000
Less: Interest expenses		1,200
Net income before tax		322,800
Less: Tax expenses		–
Net income after tax		322,800

... Company

Budgeted Balance Sheet

as on 31-Ashadh....

Liabilities and Equity	Amount	Assets	Amount
Shareholders equity	500,000	Fixed assets	300,000
Net Profit	322,800	Add: New	<u>200,000</u>
		Accounts receivable	3,28,000
Loan on mortgage	4,92,000	Inventory	5,32,000
Accounts payable	2,66,000	Cash balance	1,50,000
Accrued operating expenses	64,000	Investment(48,800+86,000)	1,34,800

16,44,800

16,44,800

Working note 2:

Month	Credit Purchase	50%	50%
Baisakh	5,04,000	2,52,000	2,52,000
Jestha	4,48,000	2,24,000	2,24,000
Ashadh	5,32,000	2,66,000	2,66,000* A/P

Working note 3:

Outstanding operating expenses = $0.10 \times \text{Rs. } 6,40,000 = \text{Rs. } 64,000$

13. **2072 Q. No. 5** The information needed for the preparation of master budget have been provided below:

Balance Sheet As on 31st December, 2014

Liabilities	Rs.	Assets	Rs.
Share capital	650,000	Cash balance	50,000
Account payable	240,000	Fixed assets	300,000
Tax payable (due in January)	20,000	Investment	140,000
Dividend payable	25,000	Account receivable	280,000
Net profit	75,000	Inventories	240,000
Total	1,010,000	Total	1,010,000

Gross profit averages 40% of sales. The company has a policy of maintaining sufficient inventory to meet the next month's sales need. Experience shows that all purchases are paid in the next month of purchase.

The actual and budgeted sales for different months are as follows:

Months	Sales (Rs.)
November (Actual)	500,000
December (Actual)	500,000
January (Budgeted)	400,000
February (Budgeted)	600,000
March (Budgeted)	550,000
April (Budgeted)	600,000

20% sales are for cash and rest on credit out of which 50% of sales are collected in the month of sales, 30% in the next month and remaining is collected next following month of sales.

Administrative and selling expenses are 10% of sales which is payable in the same month. Company is going to purchase fixed assets in the month of January costing Rs. 200,000. The company keeps minimum cash balance of Rs. 25,000 each month. If the cash is not sufficient, company can take loan from bank at 12% interest rate per annum. All the borrowings and payments are made in the multiple of Rs. 5,000 and interest will pay at the time of loan payment in the multiple of Rs. 100. Depreciation rate per year will be 10%.

Required:

1. Merchandised purchase budget for three months ending March 2015
2. Cash receipt and Disbursement budget for three months ending March 2015
3. Budgeted income statement for three months ending March 2015
4. Budgeted Balance Sheet ending March 2015

Solution:

- a. Cost to sales Ratio = $1 - \text{Gross profit ratio} = 1 - 0.4 = 0.6$
Merchandise need = planned sales \times cost to sales ratio

January = Rs. 4,00,000 × 0.60 = Rs. 2,40,000
 February = Rs. 6,00,000 × 0.60 = Rs. 3,60,000
 March = Rs. 5,50,000 × 0.60 = Rs. 3,30,000
 April = Rs. 6,00,000 × 0.60 = Rs. 3,60,000

... Company

**Merchandise Purchase Budget
 for the period of January to March**

Detail Month	Merchandise Need	Desire Ending Inventory	Total Needed	Beginning Inventory	Planned Purchase
Reference	1 = W. Note	2 = Input	3 = 1 + 2	4 = Input	5 = 3 - 4
January	2,40,000	3,60,000	6,00,000	2,40,000	3,60,000
February	3,60,000	3,30,000	6,90,000	3,60,000	3,30,000
March	3,30,000	3,60,000	6,90,000	3,30,000	3,60,000
Total	9,30,000	3,60,000	12,90,000	2,40,000	10,50,000

Working Note:

Month	Sales Revenue	Cash Sales (20%)	Credit sales (80%)
November	5,00,000	1,00,000	4,00,000
December	5,00,000	1,00,000	4,00,000
January	4,00,000	80,000	3,20,000
February	6,00,000	120,000	4,80,000
March	5,50,000	110,000	4,40,000

Months	Credit sales	Same month 50%	Next month 30%	Following next month 20%
November	4,00,000	2,00,000	1,20,000	80,000
December	4,00,000	2,00,000	1,20,000	80,000
January	3,20,000	1,60,000	96,000	64,000
February	4,80,000	2,40,000	144,000	96,000
March	4,40,000	2,20,000	132,000	88,000

b. Cash Collection and Disbursement Budget

Month	January	February	March
Beginning cash balance	50,000	25,000	105,300
Add: Cash receipts/Collection			
Cash sales	80,000	120,000	110,000
Collection from same month	160,000	240,000	220,000
Collection from previous month	120,000	96,000	144,000
Collection from two previous month	80,000	80,000	64,000
Total cash collection	440,000	536,000	538,000
Total cash available	490,000	561,000	643,300
Less: Cash disbursement:			
Payment to account payable	240,000	360,000	330,000
Payment of tax	20,000	—	—
Payment of Administrative 10%	40,000	60,000	55,000
Purchase of fixed assets	200,000	—	—
Total cash disbursement	500,000	420,000	385,000
Minimum cash balance	25,000	25,000	25,000
Total cash needed	525,000	445,000	410,000
Surplus/deficit	(35,000)	116,000	233,300
Borrowing from bank	35,000	—	—
Repayment of loan	—	(35,000)	—
Interest on loan	—	(700)	—
Closing cash balance	25,000	105,300	258,300

Working note:

- i. Account receivable = Rs 1,32,000 + Rs 96,000 + Rs 88,000
= Rs 3,16,000
- ii. Account payable = Rs. 3,60,000
Depreciation = Rs. 500,000 × 10/100 × 3/12

c. Budgeted Income Statement
For the three month period ending March ...

Particulars	Amount	Amount
Budgeted Sales		1550,000
Less: Cost of goods sold		
Beginning in inventory	2,40,000	
Add: Net cost of purchase	10,50,000	
Net cost of goods available for sales	12,90,000	
Less: Ending inventory	3,60,000	930,000
Gross profit		620,000
Less: Operating and other expenses:		
Administrative expenses @ 10%	155,000	
Depreciation	12,500	1,67,500
Net income before interest & tax		452,500
Less: Interest expenses	700	700
Net income before tax		451,800
Less: Tax Payable		20,000
Net income after tax		431,800

d. Budgeted Balance Sheet
As on 31st March ...

Liabilities	Amount	Assets	Amount
Share capital	650,000	Cash balance	258,300
Accounts payable	360,000	Fixed assets	500,000
Dividend payable	25,000	Less Depreciation	<u>12,500</u>
Net profit	75,000	Investment	140,000
Add: Net profit	<u>431,800</u>	Accounts receivable	316,000
Tax Payable	20,000	Inventories	360,000
	15,61,800		15,61,800

14. **2067 Q. No. 5** The balance sheet as of December 2009 of an industry is as follows:

Liabilities and owner equity	(Rs.)	Assets	(Rs.)
Share capital	1,000,000	Fixed assets (Cost Rs. 840,000 depreciates by 20% on original cost)	672,000
Retained earning	44,500	Inventory	
9% Debenture	200,000	Raw material: 55,000 kg@Rs. 3	165,000
Account payable	157,500	Finished goods: 25,000 units @Rs. 15	375,000
		Account receivable	170,000
		Cash	20,000
	1,402,000		1,402,000

The Industry's scheduled sales, production and raw material purchases are as follows:

	January	February	March
Sales in units	50,000	60,000	60,000
Production in units	55,000	60,000	55,000
Raw materials purchases	345,000	345,000	315,000

The industry's raw material ending inventory as of March 31, 2010 will be at the level of 55,000 kg @ Rs. 3 per kg and finished goods ending inventory of the date will be 25,000 units.

Raw materials cost per unit	Rs. 6
Wages per unit	Rs. 4
Variable manufacturing overhead	Rs. 3
Fixed manufacturing overhead	Rs. 2
Fixed operating costs	Rs. 1

The sales price per unit of output would be Rs. 17.

The raw material supplier's arrangement is to settle half of the raw material cost at the time of purchase and remaining half in the next month.

Unlike that other expenses are required to be settled at the time of expenses.

The sales would be 80% in cash and credit sales equal to 20% would fall due in the next month.

The industry has facility of obtaining borrowing in the multiple of Rs. 5,000 requiring to pay interest @ 12% p.a. on monthly basis and settle the borrowing in the multiple of Rs. 1,000.

Required:

- Cash receipts and disbursements budget for Jan, Feb and March
- Budgeted income statement for the three months ending March
- Budgeted Balance Sheet as on March end.

Solution:

... Company

Cash Collection and Disbursement Budget

Particulars	January	February	March
Beginning Cash Balance	20,000	24,000	43,300
Add: Cash Receipts			
Cash sales	680,000	816,000	816,000
Collection from previous months	170,000	170,000	204,000
Total cash receipts	850,000	986,000	1,020,000
Total Cash Available	870,000	1,010,000	1,063,300
Less: Cash Disbursement			
Payment of same month purchase	172,500	172,500	157,500
Payment of prev. month purchase	157,500	172,500	172,500
Wages @ Rs. 4 each	220,000	240,000	220,000
Variable mfg overheads @ Rs. 3 each	165,000	180,000	165,000
Fixed mfg overhead	106,000	106,000	106,000
Fixed operating cost @ Rs. 1 each	60,000	60,000	60,000
Total Cash Disbursement	881,000	931,000	881,000
Minimum Cash balance	20,000	20,000	20,000
Total Cash Needed	901,000	951,000	901,000
Surplus/Deficit	(31,000)	59,000	162,300
Borrowing	35,000	-	-
Repayment: Principal	-	(35,000)	-
Interest	-	(700)	-
Ending Balance of Cash	24,000	43,300	182,300

Note: It is assumed that minimum cash balance = Rs. 20,000

Working:

Accounts receivable at the end of March = Rs. 10,20,000 × 0.20 = Rs. 204,000

Accounts payable at the end of March = Rs. 315,000 × 0.50 = Rs. 157,500

Interest on loan repaid at the end of Feb. = Rs. 35,000 × $\frac{12}{100} \times \frac{2}{12}$ = Rs. 700

$$\text{Monthly depreciation} = \text{Rs. } 840,000 \times \frac{20}{100} \times \frac{1}{12} = \text{Rs. } 14,000$$

$$\text{Outstanding Interest on debenture} = \text{Rs. } 200,000 \times \frac{9}{100} \times \frac{3}{12} = \text{Rs. } 4,500$$

$$\text{Normal capacity} = \frac{720,000 \text{ units}}{12} = 60,000 \text{ units/month}$$

$$\text{Fixed mfg. oHs after depreciation} = 60,000 \text{ units} \times \text{Rs. } 2 - \text{Rs. } 14,000 = \text{Rs. } 106,000 \text{ (each month)}$$

... Company

Budgeted Income Statement

For the period of ...

Particulars	Amounts	Amounts
Net Sales Revenue @ Rs. 17 × 170,000 units		2,890,000
Less: Cost of Goods sold:		
Raw material	1,005,000	
Wages @ Rs. 4 × 170,000 Units	680,000	
Variable mfg overheads @ Rs. 3 × 170,000 Units	510,000	
Fixed mfg. overhead @ Rs. 2 × 170,000 Units	340,000	
Cost of Production	2,535,000	
Add: Beginning inventory @ Rs. 15 × 25,000 units	375,000	
Cost of goods available for sales	2,910,000	
Less: Closing inventory @ Rs. 15 × 25,000 units	375,000	
Cost of goods sold (unadjusted)	2,535,000	
Add: Under applied of fixed mfg .overheads	20,000	2,555,000
Gross Margin		335,000
Less: Non-Manufacturing Cost:		
Fixed operating cost		180,000
Net Profit before interest and tax		155,000
Less: Interest expenses (Rs. 700 + Rs. 4,500)		5,200
Net Profit before Tax (NPBT)		149,800

Working Notes:

$$\begin{aligned} \text{Material consumed} &= \text{Opening stock} + \text{Purchase} - \text{Closing stock} \\ &= \text{Rs. } 165,000 + \text{Rs. } 1,005,000 - \text{Rs. } 165,000 \\ &= 1,005,000 \end{aligned}$$

... Company

Budgeted Balance Sheet

Liabilities & Capital	(Rs.)	Assets	(Rs.)
Share capital	1,000,000	Fixed Assets	672,000
Retained earning (44,500 + 149,800)	194,300	Less: Depreciation	42,000
9% Debenture		Inventory:	
Accounts Payable	200,000	Raw material: @ Rs. 3 × 55,000 Units	165,000
Outstanding Interest	157,500	Finished goods: @ Rs. 15 × 25,000 Units	375,000
	4,500	Accounts receivable	204,000
		Cash	182,300
Total	1,556,300	Total	1,556,300

15. **2065 Q. No. 6** A Merchandising Company's opening Balance Sheet and other operating budgets has been summarized below:

Opening Balance Sheet for year 5

	Rs.
Equity share capital	200,000
Account payable	9,310
Note payable	48,000

Retained profit	50,440
	307,750
Cash	9,500
Account receivable	14,050
Inventory	6,200
Plant & machinery	278,000
	307,750

Merchandise purchase & sales budget for first three months of year 5.

Month	January	February	March
Purchase units @ Rs. 0.95/unit	31,600	30,000	29,200
Sales units @ Rs. 2.00/unit	32,000	30,000	30,000

Desired ending inventory at the each month is 20% of next month's sales need and that gives opening stock of 6,200 units and closing stock 5,200 units.

Sales are made 20% for cash and 80% on credit. And 80% of credit sales are collected in the month of sales and rest in the month following the sales.

Purchases are paid 70% in the month of purchase made and balance in the month following the purchase.

Note payable, due on December 31, year 5, bears 12% in interest payable quarterly.

Monthly expenses to be paid as incurred are budgeted as follows:

Period expenses	Salaries	Insurance	Depreciation	Utilities
Amount	Rs. 3,900	250	2,200	850
Selling expenses	5% of sales value each month			

The company expect to purchase a machine for Rs. 30,000 for cash down of Rs. 10,000 at January end and balance will be paid in two equal installments in next two months.

The company is within 45% tax bracket and taxes will be paid at the end of each quarter. The company will pay interim dividend equal to 20% of NIBT shown by March end Income Statement.

Required:

- Projected Income Statement for March end
- Cash receive and payment budget for three months ending March
- Projected Balance sheet for March end, year 5.

Solution:

**A Merchandise Company
Projected Income Statement Budget
For the end of March**

Particulars	Amounts	Amounts
Net Sales Revenue @ Rs. 2 × 92,000 Units		184,000
Less: Cost of merchandise sold:		
Beginning Inventory @ Rs. 1 × 6,200 Units	6,200	
Add: Purchase Budget @ Rs. 0.95 × 90,800 Units	86,260	
Cost of Merchandise Available for sales	92,460	
Less: Ending Inventory @ Rs. 0.95 × 5,200 Units	4,940	87,520
Gross margin		96,480
Less: Operating and other Expenses:		
Salaries Rs 3900 ×3 months	11,700	

Equity Share capital	200,000	Cash	13,306
Account payable	8,322	Account Receivable	9,600
Notes payables	48,000	Inventory	4,940
Retained profit (50,440 + 35,332-12,848)	72,924	Plant & Machinery (308,000-6,600)	301,400
Total	329,246	Total	329,246

Working Note:

Calculation of Merchandise Purchase = purchase in units × PPPU

January = 31,600 Units ×Rs 0.95 = Rs. 30,020

February = 30,000 Units ×Rs 0.95 = Rs. 28,500

March =29,200 Units ×Rs 0.95 = Rs. 27,740

MBS Yearly Based

16. **2053 Q.No.1** A company in its planning process prepared various budgets and also furnished the balance sheet of the first year as follows:

Beginning Balance Sheet of st Baishak			
Shareholders equity	Rs. 440,000	Inventory of finished goods 10,000 units	Rs. 100,000
Accounts payable	60,000	Raw materials inventory 30,000 units	120,000
Bank loan (payable every month Rs. 10,000 with interest 12%)	200,000	Account receivable	60,000
		Cash	20,000
		Other fixed assets	400,000
	700,000		700,000

Sales Forecast for 1st three Months and for Shrawan					
Months	Baisakh	Jestha	Ashadh	Total	Shrawan
Sales in units	10,000	12,000	12,000	34,000	15,000
Sales revenue	Rs. 200,000	Rs. 240,000	Rs. 240,000	Rs. 680,000	Rs. 300,000

Sales Forecast for 1st three Months and for Shrawan				
Months	Baisakh	Jestha	Ashadh	Total
Units Produced	12,000	12,000	15,000	39,000

Material Purchase Budget				
Months	Baisakh	Jestha	Ashadh	Total
Units purchased	30,000	37,500	30,000	97,500
Purchase price	Rs. 120,000	Rs. 1,50,000	Rs. 1,20,000	Rs. 390,000

Wages and other manufacturing expenses are Rs. 6 per unit, and operating expenses are 10% of gross sales figure, 80 percent of sales are in cash and the remaining 20 percent on credit of 30 days. Credit sales are collected in the next month of sales. 50% of the purchases are paid in the month of purchase and balance only in the next month. Wages and other expenses are paid for at the timer when they are due. Each unit of finished product needs 2.5 units of raw materials. [3+5+6+6]

Required: (a) Statement of cost-of-goods-sold budget (b) Budgeted income statement (c) Cash collection and disbursement budget (d) Budgeted balance sheet at the end of Ashadh.

Solution:

**Statement of Cost of Goods sold Budget
for three months ending Ashadh**

Particulars	Amounts
Direct material@ Rs. 10 × 39,000 units	390,000
Direct labour @ Rs. 6 × 39,000 units	234,000
Total manufacturing cost	624,000
Add: Beginning stock @ Rs. 10 × 10,000 units	100,000

Variable cost of goods available for sale	724,000
Less: Ending stock @ Rs. 16 × 15,000 units	240,000
Cost of goods sold	484,000

$$\text{Variable production per unit} = \frac{624,000}{39,000} = \text{Rs. 16}$$

$$\begin{aligned} \text{Ending stock in units} &= \text{Beginning stock} + \text{production} - \text{Sales units} \\ &= 10,000 + 39,000 - 34,000 \\ &= 15,000 \text{ units} \end{aligned}$$

$$\begin{aligned} \text{Purch (Rm)} &= \text{mat req} + \text{end} - \text{Beg} \\ 97500 &= (2.5 \times 39000) + \text{end} - 30,000 \end{aligned}$$

$$\text{End} = 30,000 \text{ Units}$$

Sales policy

Month	Sales	Cash sales 80%	Credit sales 20%
Baishakh	2,00,000	1,60,000	40,000
Jestha	2,40,000	1,92,000	48,000
Ashadh	2,40,000	1,92,000	A/R48,000

Purchase policy

Month	Purchase	50% payment in same month	50% payment in next month
Baishakh	1,20,000	60,000	60,000
Jestha	1,54,000	75,000	75,000
Ashadh	1,20,000	60,000	60,000 A/P

..... Company
Cash Receipts and disbursement Budget
 for the period of B to A

Details	Baisakh	Jestha	Ashadh
Beginning balance of cash	20,000	20,000	20,000
Add: Cash receipts :			
Cash sales	160,000	192,000	192,000
Collection from previous month of sales	60,000	40,000	48,000
Total cash received	220,000	232,000	240,000
Total cash available	240,000	252,000	260,000
Less: Cash disbursement:			
Payment of sale month purchase	60,000	75,000	60,000
Payment of account payable	60,000	60,000	75,000
Payment of wages	72,000	72,000	90,000
Payment of operation	20,000	24,000	24,000
Payment of loan with interest	12,000	11,900	11,800
Total cash disbursement	224,000	242,900	260,800
Minimum cash balance	20,000	20,000	20,000
Total Needed cash	244,000	262,900	280,800
Surplus Deficit	(4,000)	(10,900)	(20,800)
Borrowings-short term	4,000	10,900	20,800
Repayment: Principal	-	-	-
Interest	-	-	-
Ending balance of cash	20,000	20,000	20,000

..... Company
Budgeted Income Statement
 for the period of

Details	Amount (Rs.)	Amount (Rs.)
Sales revenue [200,000+240,000+240,000]		680,000
Less: Cost of goods sold		484,000
Gross profit		196,000

Less: Operating expenses [10% of sales]	68,000	
Interest on bank loan [2000+1900+1800]	5,700	73,700
Net income		122,300

**..... Company
Budgeted Balance-Sheet
as at**

Liabilities & Capital	Amounts	Assets	Amounts
Equity share of capital	440,000	Account receivable	48,000
Retained earnings	122,300	Cash at bank	20,000
Account payable	60,000	Inventory:	
Bank loan	170,000	Finished goods	240,000
Short-term loan	35,700	Raw materials	120,000
		Other fixed assets	400,000
Total	828,000	Total	828,000

17. **2055 Q.No.1** A trading company is in the process of preparing the master budget gathered the following information about its assets and liabilities and also about the past and future sales.

Inventor of merchandise		Actual and forecasted sales	
20,000 units @ Rs. 4	80,000	November	Rs. 120,000
Account receivable:		December	160,000
Nov. sales 30,000		January	160,000
Dec. sales <u>80,000</u>	110,000	February	200,000
Cash in hand	10,000	March	240,000
Total assets	200,000	April	280,000
Account payable	Rs. 80,000		

The company's sales are mostly on credit. Experience shows that 50% of credit sales are collected in the month of sales and the remaining 50% are collected following two months of sales equally. Bad debts and uncollectible debts are negligible. All purchases are paid on the following month of purchase. Margin on sales is 50%. Operating and distribution expenses are 30% of the month's sales. Expenses are payable on the month of their being due. The company has a policy of maintaining a sufficient inventory of merchandise to meet the following month's sales and a minimum cash balance of Rs. 10,000. The company has been thinking of buying a computing machine in the month of January at a cost of Rs. 80,000.

The company has reached an agreement with a bank for a soft loan at 12% interest. Loans are received in the multiple of Rs. 5,000 and payments are made in Rs. 1,000. Amount of interest due are paid for the loan repaid with the repayment amount to a nearest of Rs. 100.

Required: (a) Merchandise purchase budget (b) Operating expenses budget (c) Cash receipt and disbursement budget (d) Budgeted income statement. (e) Budgeted balance sheet at the end of March. [10]

Solution:

Working Notes:

Cost to sales ratio = 1 - Gross profit ratio = 1 - 0.5 = 0.50

Merchandise need = Planned sales revenue × Cost to sales ratio

January = Rs. 160,000 × 0.50 = Rs. 80,000

February = Rs. 200,000 × 0.50 = Rs. 100,000

March = Rs. 240,000 × 0.50 = Rs. 120,000

April = Rs. 280,000 × 0.50 = Rs. 140,000

**A trading company
Merchandise purchase budget
For the period of January to March**

Details	Merchandise	Desired Ending	Total	Beginning	Planned
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Months	Need	inventory	Need	Inventory	purchase
January	80,000	100,000	180,000	80,000	100,000
February	100,000	120,000	220,000	100,000	120,000
March	120,000	140,000	260,000	120,000	140,000
Total	300,000	140,000	440,000	800,000	360,000

A Trading Company
Operating Expenses Budget
For the period of January to March

Months	Details	Planned sales	Variable cost @ 30%
January		160,000	48,000
February		200,000	60,000
March		240,000	72,000
Total		600,000	180,000

A Trading Company
Cash receipt and disbursement budget
For the period of Jan to March

Details	January	February	March
Beginning balance of cash	10,000	12,000	10,600
Add: Cash receipts :			
Collection from same month of sales	80,000	100,000	120,000
Collection from previous month of sales	40,000	40,000	50,000
Collection from previous 2 months of sales	30,000	40,000	40,000
Total cash receipts	150,000	180,000	210,000
Total cash available	160,000	192,000	220,600
Less: Cash disbursement:			
Payment of Account payable	80,000	100,000	120,000
Payment of operating expenses	48,000	60,000	72,000
Purchase of machine	80,000	—	—
Total cash disbursement	208,000	160,000	192,000
Minimum cash balance	10,000	10,000	10,000
Total Needed cash	218,000	170,000	202,000
Surplus Deficit	(58,000)	22,000	18,600
Borrowings-short term	60,000	—	—
Repayment: Principal	—	21,000	18,000
Interest	—	400	600
Ending balance of cash	12,000	10,600	10,000

Workings:

$$\text{Interest on loan repaid} = \text{Rs. } 21,000 \times 0.12 \times \frac{2}{12} = \text{Rs. } 420$$

$$\text{Interest on loan repaid} = \text{Rs. } 18,000 \times 0.12 \times \frac{3}{12} = \text{Rs. } 540$$

$$\text{Account receivable end of March} = 0.25 \times \text{Rs. } 200,000 + 0.5 \times \text{Rs. } 240,000 = \text{Rs. } 170,000$$

$$\text{Account payable end of March} = 0.25 \times \text{Rs. } 200,000 + 0.5 \times \text{Rs. } 240,000 = \text{Rs. } 140,000$$

A Company
Budgeted Income Statement
For the period of three Month Ending March

Details	Amount (Rs.)	Amount (Rs.)
Sales revenue		600,000
Less: Cost of Merchandise sold:		
Beginning inventory (January)	80,000	
Add: cost of purchase	360,000	
Cost of merchandises available for sales	440,000	

Less: ending inventory (March)	140,000	300,000
Gross margin		300,000
Less: Operating expenses:		
Operation and distribution exp. (30%)		180,000
Net profit before income tax		120,000
Less: Interest expenses (420+540+630)		1,590
Net profit before tax		118,410

Interest unpaid loan = Rs. 21,000 × $\frac{12}{100} \times \frac{3}{12}$ = Rs. 630

Opening Balance Sheet

Owners equity and Liabilities	Amounts	Assets	Amounts
Account payable	80,000	Merchandise inventory	80,000
Owners equity (balancing figure)	120,000	Account receivable	110,000
		Cash in hand	10,000
Total	200,000	Total	200,000

A Trading Company
Budgeted Balance Sheet
at the end of March

Liabilities	Amounts	Assets	Amounts
Account payable	140,000	Merchandise inventory	140,000
Short term loan [60,000 – 21,000 – 18,000]	21,000	Account receivable	170,000
Interest payable [1,590–1,000]	590	Cash in hand	10,000
Owners equity	1,20,000	Computing machine	80,000
Retained earning	1,18,410		
Total	400,000	Total	400,000

18. **2056 Q.No.1** The beginning balance sheet and other related information necessary to prepare a master budgeted have been given below:

Liability	Rs.	Assets	Rs.
Account payable	100,000	Inventory:	
Owner's equity	494,000	Finished produce 20,000 units	280,000
Debenture loan	100,000	Raw materials 50,000 units	100,000
		Account receivable	208,000
		Fixed assets	96,000
		Cash at bank	10,000
	694,000		694,000

Schedule 1: Past and forecasted sales:

Months	Nov.	Dec.	Jan.	Feb.	March	April	May
Sales in units	15,000	20,000	20,000	25,000	30,000	35,000	40,000
Sales in revenue	300,000	400,000	400,000	500,000	600,000	700,000	800,000

Schedule 2: Manufacturing overhead cost budget

Months	Jan	Feb	March
Indirect material	50,000	60,000	70,000
Indirect wages	25,000	30,000	35,000
Depreciation	2,000	2,000	2,000
Others	48,000	48,000	48,000
Total	125,000	140,000	155,000

Of the total sales 20% will be in cash and 80% on credit. 50% of credit sales will be realized in the month of sales, 30% in the next month of sales and the balance in the next following month of sales. Bad and uncollectible debts will be negligible.

Each unit of finished product will need 2 units of raw materials at a cost of Rs. 4 and direct labor hour of 2 at the rate of Rs. 3.5 per direct labor hour. The selling and distribution cost will

be 10% of sales revenue. All direct labor costs and overhead costs will be paid in the month when they became due. All purchases will be paid in the next month of purchases.

Desired ending balance of raw material and finished goods at the end of each month will be sufficient inventory units to meet the next month's sales and need; and a minimum cash and bank balance of Rs. 10,000. Debenture debts will mature in early January next year.

The company has entered into an agreement with a commercial bank for the line of credit to make up the deficiency of cash. According to the agreement all borrowing will be in a multiple of Rs. 5,000 and payment in Rs. 1,000 with an interest rate of 12% for the amount of loan repaid.

Required: (a) Material purchase budget (b) Direct labor cost budget (c) Cash collection and disbursement budget (d) Budgeted income statement (e) Budgeted balance sheet at the end of March. [10]

Solution:**Working Notes:**

a.

.... Company
Production Budget
For the period of January to March

Details Period	Planned Sales Units	Desired Ending Inventory of FG	Total Need	Beginning Inventory of FG	Planned Production in Unit
Reference	1 = Input	2 = Input	3 = 1+2	4 = Input	5 = 3-4
January	20,000	25,000	45,000	20,000	25,000
February	25,000	30,000	55,000	25,000	30,000
March	30,000	35,000	65,000	30,000	35,000
Total	75,000	35,000	1,10,000	20,000	90,000
April	35,000	40,000	75,000	35,000	40,000

Material required: Planned production × Standard raw materials usage rate

January = 25,000 × 2 = 50,000 units

February = 30,000 × 2 = 60,000 units

March = 35,000 × 2 = 70,000 units

April = 40,000 × 2 = 80,000 units

..... Company
Raw material purchased Budgeted
for the period of January to March

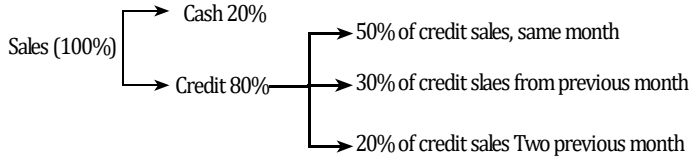
Details Periods	Raw material required	Desired ending inventory	Total	Beginning Inventory	Planned Purchase	
					Unit	Amount @ Rs. 2
Ref.	1 = WN	2 = Input	3 = 1+2	4 = 3-2	5 = 3-4	6 = 2×rate
January	50,000	60,000	110,000	50,000	60,000	120,000
February	60,000	70,000	130,000	60,000	70,000	140,000
March	70,000	80,000	150,000	70,000	80,000	160,000 A/P
Total	180,000	80,000	260,000	50,000	210,000	420,000

b.

..... Company
Direct labour cost Budget
for 3 months

Months	Planned Production	Standard Time (hour)	Total Standard Time	Rate per hour (Rs.)	Amounts (Rs.)
Ref.	1 = Input	2 = Input	3 = 1×2	4=Input	5=3×4
January	25,000	2	50,000	3.50	175,000
February	30,000	2	60,000	3.50	210,000
March	35,000	2	70,000	3.50	245,000

Total	90,000	2	180,000	3.50	630,000
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Working Note:

Ending inventory = Beginning stock + Production unit – Sales unit
 = 20,000 + 90,000 – 75,000
 = 35,000 units

Outstanding Interests:

January = Rs. 155,000 × 0.12 × $\frac{3}{12}$ = Rs. 4,650

February = Rs. 60,000 × 0.12 × $\frac{2}{12}$ = Rs. 1,200

March = Rs. 55,000 × 0.12 × $\frac{1}{12}$ = Rs. 550

Total **Rs. 6,400**

Credit sales

November = Rs. 300,000 – (0.20 × Rs. 300,000) = Rs. 240,000
 December = Rs. 400,000 – (0.20 × Rs. 400,000) = Rs. 320,000
 January = Rs. 400,000 – (0.20 × Rs. 400,000) = Rs. 320,000
 February = Rs. 500,000 – (0.20 × Rs. 500,000) = Rs. 400,000
 March = Rs. 600,000 – (0.20 × Rs. 600,000) = Rs. 480,000

Account receivable

February = Rs.4,00,000 × 0.20 = Rs. 80,000
 March = Rs. 4,80,000 × 0.50 = Rs. 2,40,000
 = Rs. 3,20,000

c.

..... Company

**Cash collection and Disbursement
for the period of Jan–March**

Details	January	February	March
Beginning cash balance	10,000	11,000	13,000
Add: Cash receipts :			
Cash sales	80,000	100,000	120,000
Collection from same month of sales	160,000	200,000	240,000
Collection from previous month of sales	96,000	96,000	120,000
Collection from previous 2 months of sales	48,000	64,000	64,000
Total cash receipts	384,000	460,000	544,000
Total cash available	394,000	471,000	557,000
Less: Cash disbursement:			
Payment of debenture	1,00,000	–	–
Account payable	1,00,000	120,000	140,000
Payment of labour cost	175,000	210,000	245,000
Payment of indirect materials	50,000	60,000	70,000
Payment of indirect wages	25,000	30,000	35,000
Payment of others	48,000	48,000	48,000
Payment of selling overheads	40,000	50,000	60,000
Total cash disbursement	538,000	518,000	598,000
Minimum cash balance	10,000	10,000	10,000

Total Needed cash	548,000	528,000	608,000
Surplus Deficit	(1,54,000)	(57,000)	(51,000)
Borrowings-short term	155,000	60,000	55,000
Repayment: Principal	–	–	–
Interest	–	–	–
Ending balance of cash	11,000	13,000	14,000

d.

..... Company
Budgeted Income Statement
For the periods of January to March

Particulars	Amounts	Amounts
Sales revenue [75,000 units @ Rs. 20]		1,500,000
Less: Variable cost of sales		
Direct material [90,000 units @ Rs.4]	360,000	
Direct labour [90,000 units @ Rs.7]	630,000	
Indirect material [90,000 units @ Rs.2]	180,000	
Indirect labour [90,000 units @ Rs.1]	90,000	
Variable cost of production	1,260,000	
Add: Beginning stock [20,000 units @ Rs.14]	280,000	
Variable cost of goods available for sales	1,540,000	
Less: Ending stock [35,000 units @ Rs.14]	490,000	
Variable cost of goods sold	1,050,000	
Add: Selling and distribution	1,50,000	1,200,000
Contribution margin		300,000
Less: Fixed cost:		
Depreciation	6,000	150,000
Others	144,000	
Net profit before Interest and tax		150,000
Less: Interest expenses		6,400
Net income before tax		143,600

e.

... Company
Budgeted Balance Sheet
as on ...

Liabilities	Amounts	Assets	Amounts
Account payable	160,000	Inventory:	
Owners equity	494,000	Finished goods @ Rs. 14 × 35,000 unit	490,000
Bank loan	270,000	Raw material @ Rs. 2 × 80,000 unit	160,000
Interest outstanding	6,400	Account receivable	
Profit for the period	143,600	Feb sales	80,000
		March sales	<u>240,000</u>
		Fixed assets	96,000
		Less: Depreciation	<u>6,000</u>
		Cash at bank	14,000
Total	1,074,000	Total	1,074,000

□