## Management Accountancy

## Unit 10

Master Budget - Financial Statements

## Structure

- Master Budget - Financial Statements (Budgeted Balance Sheet, Budgeted Income Statement, Cash Budget)


## After the completion of this unit, you should be able to:

- Prepare Projected Financial Statements (Budgeted Balance Sheet, Budgeted Income Statement, Cash Budget)


### 10.1 Cash Budget

The cash budget is a plan of future cash receipt and payment. The statement showing the estimated cash inflow and cash cash outflow over a projected time period is known as Cash Budget. A very helpful tool in cash management is the cash budget. It helps management in planning to avoid unnecessary idle cash balance. In the same way it also helps to eliminate unneeded expensive borrowing. Thus, the cash budget helps management keep cash balances in reasonable relationship to its needs.
The cash budget consists of following four major sections :

| Section 1: | Receipt Section |
| :--- | :--- |
| Section 2: | Disbursement Section |
| Section 3: | Cash Surplus or Deficit Section |
| Section 4: | Financing Section |

## Section 1 : Receipt Section

All the incomes receivable during the budgeted period are included in it. In this section, priority is given to cash receivable than to the sources of income. For instance, the income confirmed out of the sales of material, is not included in cash budget unless the cash is receivable.
This section begins with the opening balance of cash. For this the cash receipt will be added from different sources. Normally, the sources of cash of a business concern are as follows :
(i) Beginning cash in hand and at bank.
(ii) Cash sale.
(iii) Cash collection from debtors.
(iv) Cash from selling of fixed assets.
(v) Interest and dividend received.
(vi) Issue of shares and debentures.
(vii) Bank Loan.
(viii) Loan from financial institution etc.

## Section 2 : Disbursement Section

This section includes all the estimated cash payment to be made in budgeted period. Some of the payments that come in this section are given below.
(i) Cash purchases.
(ii) Payment to creditors.
(iii) Wages and salaries payment.
(iv) Payment of overhead.
(v) Repayment of borrowed capital.
(vi) Payment for fixed assets purchases.
(vii) Interest payment.
(viii) Dividend payment.
(ix) Payment of other expenses etc.

## Section 3 : Cash Surplus or Deficit Section

This section shows the difference between the cash receipt section and disbursements section, The result shows the surplus if total receipt exceeds to total payment. On the contrary, if total payment exceeds to total receipt, the result shows the deficit balance of cash.

## Section 4 : Financing Section

This section provides a detailed account of the borrowing and repayments expected during the budgeted period. A cash budget may be prepared in the following form :

## Cash Budget

For the Months of . $\qquad$

| Details/Months | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Beginning Cash Balance (a) | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ |
| Add : Budgeted Cash Receipts |  |  |  |  |
| $\quad$ Cash Sales | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ |
| Collection from Debtors | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ |
| Cash from Selling of Fixed Assets | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ |
| Interest and Dividend Received | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ |
| Issue of Shares and Debentures | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ |
| Any Other Sources of Cash Inflows | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ |
| Total Cash Receipt (b) | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ | $\times \times \times \times$ |
| Total Cash Available for Payments (c=a+b) | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ |

Less : Payments

| Cash Purchases | $\times \times \times$ | $x \times x$ | <xx | $x \times \times$ |
| :---: | :---: | :---: | :---: | :---: |
| Cash Pay to Creditors | $\times \times \times$ | $\times \times \times$ | $x \times x$ | $\times \times \times$ |
| Wages and Salaries Paid | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ |
| Cash Paid for Overhead Expenses | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ |
| Payment for Fixed Assets Purchases | $\times \times \times$ | $\times \times \times$ | $x \times x$ | $\times \times \times$ |
| Interest and Dividend Paid | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ |
| Loan/Debenture Redemption | $\times \times \times$ | $\times \times$ | $\times \times$ | $x \times \times$ |
| Any Other Sources of Cash Outflows | $\times \times \times$ | $\times \times$ | $\times \times$ | $x \times \times$ |
| Total Payments (d) | $\times \times \times$ | $\times \times \times$ | $x \times \times$ | $x \times \times$ |
| Ending Cash Balance (Before Financing) $(\mathrm{c}-\mathrm{d}$ ) | $\times \times \times$ | $\times \times \times$ | $x \times \times$ | $x \times$ |
| Add : Borrowings | $\times \times \times$ | $x \times x$ | $\times \times \times$ | $x$ |
| Less : Repayment of Loan - Principal | $x \times x$ | $x \times x$ | $x \times x$ | $x \times x$ |
| Interest | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ |
| Ending Cash Balance (After Financing) | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ |

### 10.2 Budgeted Income Statement

Budgeted net income from operation can be computed after the completion of all of the preceding budgets. The budgeted net income from normal operation is ascertained by budgeted income statement. A budgeted income statement summarises all the budgets i.e. sales budget, production budget, material purchase budget, office and administrative overhead budget, selling and distribution overhead. It includes the various projections of revenue and expenses for the budgeted period.

The proforma of budgeted income statement is as follows :

| Budgeted Income Statement |  |  |
| :---: | :---: | :---: |
|  | Rs. | Rs. |
| Budgeted Sales Revenue |  | x $\times$ x |
| Less : Budgeted Cost of Goods Sold |  |  |
| Budgeted Manufacturing Overhead | $x \times x$ |  |
| Add : Opening Stock | $x \times x$ |  |
|  | $x \times x$ |  |
| Less : Closing Stock | $x \times x$ |  |
| Budgeted Cost of Goods Sold |  | xxx |
| Gross Profit |  | x $\times$ x |
| Less : Non-Manufacturing Cost : |  |  |
| Office and Administrative Cost | $x \times x$ |  |
| Selling and Distribution Cost | $x \times x$ |  |
| Total Non-Manuf.Cost |  | $x \times x$ |
| Budgeted Net Profit Before tax |  | $x \times x$ |
| Less: Tax |  | $\underline{x \times x}$ |
| Budgeted Net Profit After Tax |  | $x \times x$ |

### 10.3 Budgeted Balance Sheet

Preparation of Budgeted Balance Sheet is the final step in budgeting. The budgeted balance sheet is developed by beginning with the balance sheet for the year just ended and adjusting it, using all the activities that are expected to place during the budgeted period.
The format of the budgeted balance sheet is as follows :
Budgeted Balance Sheet As at ... ... ...

| Assets and Liabilities | Rs. | Rs. |
| :--- | :---: | :---: |
| A. Fixed Assets | $\times \times \times$ |  |
| $\quad$ Less : Accumulated Depreciation | $\times \times \times$ |  |
| B. Current Assets : |  | $\times \times \times$ |
| Cash in Hand | $\times \times \times$ |  |
| Cash at Bank | $\times \times \times$ |  |
| Inventories | $\times \times \times$ |  |
| Sundry Debtors | $\times \times \times$ |  |
| Bills Receivable | $\times \times \times$ |  |
| Prepaid e.t.c | $\times \times \times$ |  |
| Total Current Assets |  | $\times \times \times$ |


| Total Assets (A+B) |  | $\times \times \times$ |
| :---: | :---: | :---: |
| C. Share Capital | $\times \times \times$ |  |
| D. Retained Earning | $\times \times \times$ |  |
| Total Shareholder's Equity (C+D) |  | $\times \times \times$ |
| E. Long Term Liabilities |  | $\times \times \times$ |
| F. Current Liabilities and Provisions : |  |  |
| Sundry Creditors | $\times \times \times$ |  |
| Bills Payable | $\times \times \times$ |  |
| Bank Overdraft | $\times \times \times$ |  |
| Outstanding Expenses | $\times \times \times$ |  |
| Provision for Taxation | $\times \times \times$ |  |
| Proposed Dividend | $\times \times \times$ |  |
| Total Current Liabilities |  | $\times \times \times$ |
| Total Liabilities |  | $\times \times \times$ |

### 10.4 Other Budgets

## Cost of Goods Sold Budget

Cost of goods production is prepared for planning the production cost which includes direct materials, direct labours and manufacturing overheads. Under variable costing, fixed manufacturing overheads are excluded from production cost. But under absorption costing, fixed manufacturing overhead is included in production cost. It can be prepared after preparation of production budget, direct material consumption budget, direct labour cost budget and manufacturing overhead budget.

The format of cost of goods sold budget is given below:

| Cost of Goods Sold Budget (Under Variable Costing) <br> For Months.................................. |  |
| :--- | :---: |
| Beginning Inventory of Direct Materials | $\times \times \times$ |
| Add : Purchase of Direct Materials | $\times \times \times$ |
| Total Direct Materials Available | $\times \times \times$ |
| Less : Ending Inventory of Direct Materials | $\times \times \times$ |
| $\quad$ Total Direct Materials Consumption | $\times \times \times$ |
| $\quad$ Direct Labour | $\times \times \times$ |
| $\quad$ Variable Manufacturing Overhead | $\times \times \times$ |
| $\quad$ Total Production Cost | $\times \times \times$ |
| Add : Beginning Inventory of Finished Goods | $\times \times \times$ |
| $\quad$ Total Finished Goods Available for Sale | $\times \times \times$ |
| Less : Ending Inventory of Finished Goods | $\times \times \times$ |
| $\quad$ Cost of Goods Sold | $\times \times \times$ |

## Account Receivable Budget

Account receivable budget includes the portion of credit sales and details of amount collection from the customers. It is very much useful to control over the credit sales.

The format of Account receivable budget is given below:

## Account Receivable Budget

For Months. $\qquad$

| Particulars/Months | Januar <br> $\mathbf{y}$ | Februar <br> $\mathbf{y}$ | March | Total |
| :--- | ---: | ---: | ---: | ---: |
| Beginning Balance | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ |
| Add : Credit Sales | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ |
| $\quad$ Total Receivable | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ |
| Less : Collection from Debtors |  |  |  |  |
| $\quad$ This Month's Sales | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ |
| $\quad$ Last Month's Sales | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ |
| $\quad$ Total Collection from | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ |
| $\quad$ Debtors |  |  |  |  |
| Ending Balance |  |  |  |  |

## Account Payable Budget

Account payable budget includes the portion of credit purchases and payment of such credit purchases. It is very much useful to strength the credit purchase activities.
The format of Account payable budget is given below:

## Account Payable Budget

For Months.

| Particulars/Months | January | February | March | Total |
| :--- | :---: | :---: | :---: | :---: |
| Beginning Balance | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ |
| Add : Credit Purchase | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ |
| $\quad$ Total Payable | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ |
| Less : Payment to | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ |
| $\quad$ Creditors |  |  |  |  |
| Ending Balance | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ | $\times \times \times$ |

## ILLUSTRATION 1

The Nepal Electronics Co. products and sells a single product. The product requires two types of raw materials - A and B. The standard usage for each product is A: 2 units and B:4 units. The actual sale for the last month was Rs. 150,000 . Sales planning for coming three months are as follows:

|  | January | February | March |
| :--- | ---: | ---: | ---: |
| Budgeted Sales Units | 4,000 | 5,000 | 6,000 |

The company's policy is to have enough inventory to meet $25 \%$ of the next month budgeted sales. The beginning and ending inventory for 3 months period estimated are as follows:

|  | Product | Material A | Material B |
| :--- | ---: | ---: | ---: |
| Beginning Inventory (Units) | 1,000 | 5,000 | 8,000 |
| Ending Inventory (Units) | 1,500 | 6,000 | 10,000 |

In the case of raw material, the company's policy is to maintain ending inventory equal to $50 \%$ of the units required for the next month's production. The purchasing price of the raw material A and B is Rs. 5 and Rs. 10 per unit respectively.

The assistant controller is preparing 3 months budgets ending March. In the process, the following information have been accumulated:
Sales: Unit sales price Rs. 75 . Credit sales typically are $80 \%$ of total sales. The credit experience indicates that $50 \%$ of the credit sales are collected during the month of sales and the remainders are collected during the following month.
Purchases: All purchases are credit purchases and creditors are paid in the following month of purchases. The purchases for Chaitra was Rs.150,000.
Overheads: Other monthly expenses will be as follows:

| Salaries and Wages | Rs. 40,000 |
| :--- | ---: |
| Rent and Taxes | Rs. 50,000 |
| Depreciation | Rs. 10,000 |
| Others | Rs. 20,000 |
| Total | Rs. 120,000 |

Capital Expenditure: The president of the company has indicated that the firm should acquire a machine at a payment of Rs.50,000 on January.
Balance of cash on $1^{\text {st }}$ January in Rs. 200,000.
Required:(a) Sales budget for 3 months
(b) Production Budget for 3 months.
(c) Material Purchase Budget for 3 months.
(d) Cash Budget for 3 months.

Solution
(a) Key points: (1) Sales units (2) Selling price

Sales budget from $1^{\text {st }}$ January to end of March

| Months | Budgeted Sales units | Selling price | Sales Revenue |
| :--- | :---: | :---: | :---: |
| January | 4,000 | 75 | $3,00,000$ |
| February | 5,000 | 75 | $3,75,000$ |
| March | 6,000 | 75 | $4,50,000$ |
| Total | 15,000 |  | $1,125,000$ |

(b) Key points: (1) budgeted sales units (2) inventory policy

Production budget for 3 months from $1^{\text {st }}$ January to end of March

|  | January | February | March |  |
| :--- | :--- | :--- | :--- | :--- |
| Budgeted sales units | 4,000 | 5,000 | 6,000 |  |
| Add: Closing stock | $1,250 \quad(5000 \times 25 \%)$ | $1,500 \quad(6,000 \times 25 \%)$ | $1,500 \quad$ (Given) |  |
| Total need | 5,250 | 6,500 | 7,500 |  |
| Less: Opening stock | $1,000 \quad$ (Given) | 1,250 | 1,500 |  |
| Budgeted Production units | 4,250 | 5,250 | 6,000 |  |

(c) Key points: (1) Raw material consumption (2) inventory policy (3) Raw material price Raw material purchase budget

|  | January | February | March |
| :--- | :---: | :---: | :---: |
| Raw Material "A" |  |  |  |
| Budgeted RM Consumption units | 8,500 | 10,500 | 12,000 |
| Add: Closing stock | 5,250 | 6,000 | 6,000 |
| Total need | 13,750 | 16,500 | 18,000 |
| Less: Opening stock | 5,000 | 5,250 | 6,000 |


| Budgeted Purchase units | 8,750 | 11,250 | 12,000 |
| :--- | :---: | :---: | :---: |
| Budgeted Purchase amount @ Rs 5 | 43,750 | 56,250 | 60,000 |
| Raw Material "B" |  |  |  |
| Budgeted RM Consumption units | 17,000 | 21,000 | 24,000 |
| Add: Closing stock | 10,500 | 12,000 | 10,000 |
| Total need | 27,500 | 33,000 | 34,000 |
| Less: Opening stock | 8,000 | 10,500 | 12,000 |
| Budgeted Purchase units | 19,500 | 22,500 | 22,000 |
| Budgeted Purchase amount @ Rs 10 | 195,000 | 225,000 | 220,000 |
| Total Purchase amount [A+B] Rs. | 238,750 | 281,250 | 280,000 |

## Working Note 1: Raw material consumption budget

Key points: (1) Production units (2) Raw material consumption rate

|  | January | February | March |
| :--- | :---: | :---: | :---: |
| Budgeted Production units | 4,250 | 5,250 | 6,000 |
| Raw Material "A" consumption @2units/unit | 8,500 | 10,500 | 12,000 |
| Raw Material "B" consumption @4units/unit | 17,000 | 21,000 | 24,000 |

(d) Cash Budget from $1^{\text {st }}$ Jan. to end of March

|  | January | February | March | April |
| :--- | ---: | ---: | ---: | ---: |
| Opening Balance | 200,000 | 130,000 | 126,250 |  |
| Add: Receipt |  |  |  |  |
| Cash sales (Working Note 2) | 60,000 | 75,000 | 90,000 |  |
| Collection from debtors (W/N 2) | 180,000 | 270,000 | 330,000 |  |
| Total Receipt | 240,000 | 345,000 | 420,000 |  |
| Amount available for payment | 440,000 | 475,000 | 546,250 |  |
| Less: Payment |  |  |  |  |
| Pay to creditors | 150,000 | 238,750 | 281,250 | 280,000 |
| Salaries and wages | 40,000 | 40,000 | 40,000 |  |
| Rent and Taxes | 50,000 | 50,000 | 50,000 |  |
| Others | 20,000 | 20,000 | 20,000 |  |
| Machine purchase | 50,000 | - | - |  |
| Total Payments | 310,000 | 348,750 | 391,250 |  |
| Closing Balance | 130,000 | 126,250 | 155,000 |  |

Working Note 2: Cash sales and amount collection from debtors

|  | December | January | February | March | April |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Budgeted S/R | $1,50,000$ | $3,00,000$ | $3,75,000$ | $4,50,000$ |  |
| Cash sales $(20 \%)$ | 30,000 | 60,000 | 75,000 | 90,000 |  |
| Credit sales $(80 \%)$ | $1,20,000$ | $2,40,000$ | $3,00,000$ | $3,60,000$ |  |
| Collection from debtors |  |  |  |  |  |
| This month's sales (50\%) | 60,000 | $1,20,000$ | $1,50,000$ | $1,80,000$ |  |
| Last month's sales (50\%) |  | 60,000 | $1,20,000$ | $1,50,000$ | $1,80,000$ |
| Total amount collection |  | $1,80,000$ | $2,70,000$ | $3,30,000$ |  |

## ILLUSTRATION 2

In its process of preparing budget a trading limited company prepared the following budgets.
Schedule: Past Sales and Sales Budget:

| Month | December | January | February | March | April |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Sales Revenue | 500,000 | 600,000 | 700,000 | 600,000 | 500,000 |

Sales: $20 \%$ of sales will be in cash and remaining $80 \%$ will be in credit. $80 \%$ of credit sales will be collected in the month of sales and remaining in the next month of sales.
Gross Profit: The gross profit margin on sales will be $45 \%$.
Inventory Policy: The desired ending inventory of merchandise will be equal to meet next month's sales need.
Desired Cash Balance: A minimum cash balance of Rs.25,000.
Operating Expenses: The operating expenses, selling and distribution expenses will be $20 \%$ of sales revenue paid when they due
Purchases: the purchases of the month will be paid in the month of purchase.
Capital Expenditure: Company intends to purchase a vehicle at a cost of Rs.2,00,000 in the month of Baishak.
Share Issues: Company has planned to issue additional share capital for amounting Rs. 2,00,000 on the month of Jetha
Cash Balances and its Provisions: the minimum cash balance Rs. 25,000 each month and excess of Rs. 30,000 is deposited into bank. The company has approached a commercial bank for a line of credit to meet temporary deficiency of cash. The borrowings will be in a multiple of Rs. 5,000 and repayments in Rs. 1,000 together with interest of $12 \%$ p.a.
Cash and Inventory Balances: The cash balance and inventory of merchandise at the end of Chaitra was Rs. 26,000 and Rs.3,30,000.

Required: (a) Merchandise purchase budget for the three months ending March.
(b) Operating and selling and distribution budget for the three months.
(c) Cash collections and distribution budget for the three months.

## Solution

(a) Merchandise purchase budget for the three months ending March

|  | January | February | March | April |
| :--- | ---: | ---: | ---: | :---: |
| Sales | 600,000 | 700,000 | 600,000 | 500,000 |
| Less: Gross Profit @45\% | 270,000 | 315,000 | 270,000 | 225,000 |
| Cost of Sales | 330,000 | 385,000 | 330,000 | 275,000 |
| Add: Ending Inventory | 385,000 | 330,000 | 275,000 |  |
| Total need | 715,000 | 715,000 | 605,000 |  |
| Less: Beginning Inventory | 330,000 | 385,000 | 330,000 |  |
| Purchase Amount | 385,000 | 330,000 | 275,000 |  |

(b) Operating and selling and distribution budget for the three months

|  | January | February | March |
| :--- | :---: | :---: | :---: |
| Sales | 600,000 | 700,000 | 600,000 |
| Operating and selling and <br> distribution @ 20\% on Sales | 120,000 | 140,000 | 120,000 |

(c) Cash Budget

|  | January | February | March |
| :--- | ---: | ---: | :---: |
| Opening Balance | 26,000 | 25,000 | 316,600 |
| Add: Receipt <br> Cash sales (Working Note 1) | 120,000 | 140,000 | 120,000 |


| Collection from debtors (Working Note 1) | 464,000 | 544,000 |  |
| :--- | ---: | ---: | ---: |
| Issue of share |  | 496,000 |  |
| Total Receipt | 584,000 | 884,000 |  |
| Amount available for payment | 610,000 | 909,000 | 616,000 |
| Less: Payment |  |  |  |
| Purchase | 385,000 | 330,000 | 275,000 |
| Operating and selling and distribution | 120,000 | 140,000 | 120,000 |
| Vehicle purchase | 200,000 |  |  |
| Total Payments | 705,000 | 470,000 | 395,000 |
| Cash Surplus (Deficits) | $(95,000)$ | 439,000 | 537,600 |
| Borrowing from Bank | 120,000 | 0 | 0 |
| (Repayment of loan - Principal) | 0 | $(120,000)$ | 0 |
| (Repayment of loan - Interest) | 0 | $(2,400)$ | 0 |
| Closing Balance | 25,000 | 316,600 | 537,600 |
|  |  |  |  |
| Cash Balance | 25,000 | 30,000 | 30,000 |
| Bank balance | 0 | 286,600 | 507,600 |

Interest $=120,000 \mathrm{X} 12 \% \mathrm{X} 2 / 12=2,400$
Bank balance $=$ Current Account

W/N 1: Cash sales and amount collection from debtors

|  | December | January | February | March | April |
| :--- | ---: | ---: | ---: | ---: | :---: |
| Budgeted Sales Revenue | 500,000 | 600,000 | 700,000 | 600,000 |  |
| Cash sales (20\%) | 100,000 | 120,000 | 140,000 | 120,000 |  |
| Credit sales (80\%) | 400,000 | 480,000 | 560,000 | 480,000 |  |
| Collection from debtors |  |  |  |  |  |
| This month's sales (80\%) | 320,000 | 384,000 | 448,000 | 384,000 |  |
| Last month's sales (20\%) |  | 80,000 | 96,000 | 112,000 | 96,000 |
| Total amount collection |  | 464,000 | 544,000 | 496,000 |  |

## ILLUSTRATION 3

The sales budget for a company for the first quarter of a year is given below :
Baisakh Budgeted sales Rs. 1,10,000
Jestha
1,50,000
Ashadh
1,80,000
Total $\underline{\underline{4,40,000}}$
In order to have data available for preparing a Cash Budget, the company is anxious to determine budgeted cash collections from sale.
To this end, the following information has been assembled :

Collection of sales:
$60 \%$ in month of sales
$30 \%$ in month following scale
$8 \%$ in second month following sale
$2 \%$ uncollective

The company gives a $2 \%$ cash discount for payments made by customers during the month of sale. The accounts receivable balance to start the year is Rs. 44,000 of which Rs. 8,000 represents uncollected Falgun sales and Rs. 36,000 represents uncollected Chaitra sales.
Required :
What were the total sales for Falgun ? For Chaitra?

Prepare a schedules showing the budgeted cash collection from sales, by month and in total, for the three month period.
Solution:

|  | November | December | January | February | March | April |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | :--- |
| Credit Sales | $* * 80,000$ | $* 90,000$ | 110,000 | 150,000 | 180,000 |  |  |
| This month 60\% | 54,000 | 54,000 | 66,000 | 90,000 | 108,000 |  |  |
| (Discount 2\%) |  |  | $(1,320)$ | $(1,800)$ | $(2,160)$ |  |  |
| Last month 30\% |  | 24,000 | $* 27000$ | 33,000 | 45,000 | 72,000 | March <br> Sales <br> $40 \%$ |
| Before last month <br> $8 \%$ |  |  | $* * 6,400$ | $* 7,200$ | 8,800 | 15,000 | Feb. <br> Sales |
| Total amount <br> collection |  |  | 98,080 | 128,400 | 159,640 |  |  |
| Bad Debt 2\% |  |  | $* * 1,600$ | $* 1,800$ | 2,200 | P/LA/C |  |


| Account Receiable | Chaitra Sales $=36000$ X 100/40 $=90,000$ |
| :--- | :--- |
| $*$ Chaitra Sales $=36,000$ |  |
| $* *$ Falgun Sales $=8,000$ |  |$\quad$ Falgun Sales $=8,000$ X 100/10 $=80,000$

## ILLUSTRATION 4

The Balance Sheet as on December $31^{\text {st }}$ of year II of an industry is given below:

|  | Rs. | Rs. |  |
| :--- | ---: | :--- | ---: |
| Capital | 500,000 | Building | 200,000 |
| Profit and Loss Account | 220,000 | Machine | 160,000 |
| Amount due for Merchandise | 225,000 | Investment | 40,000 |
| Amount Payable Machine Supplier | 50,000 | Inventory: |  |
| (due in Baishak) |  | Merchandise | 121,000 |
| Outstanding Wages | 124,800 | Finished Goods | 86,400 |
|  |  | Account Receivable |  |
|  |  | from Customer: |  |
|  |  | Sale of Falgun | 184,000 |
|  |  | Sale of Chaitra | 320,000 |
| Tax Payable due in Baishakh | 16,600 | Cash in Hand | $\frac{25,000}{}$ |
|  | $1,136,400$ |  | $1,136,400$ |

The actual sales and forecasted sales of the coming year are given for necessary consideration.

| Months | November | December | January | February | March | April | May |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Sales in Units | 23,000 | 20,000 | 24,000 | 25,000 | 24,000 | 25,000 | 25,000 |

Sales: Sale price per unit will be Rs. 20. 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 \& 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. 120,000.
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.
The industry paid Rs. 50,000 in Baishak to machine supplier. 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: 1. Production Budget for three months ending March
2. Merchandise Purchase Budget for three months ending March
3. Cash Budget for three months ending March
4. Income Statement (consolidated) for three months ending March

## Solution

1 Production Budget

|  | January | February | March | April | May |
| :--- | ---: | ---: | ---: | ---: | :--- |
| Sales units | 24,000 | 25,000 | 24,000 | 25,000 | 25,000 |
| Add: Ending Inventory | 5,000 | 4,800 | 5,000 | 5,000 |  |
| Total need | 29,000 | 29,800 | 29,000 | 30,000 |  |
| Less: Beginning Inventory | $* 4,800$ | 5,000 | 4,800 | 5,000 |  |
| Production units | 24,200 | 24,800 | 24,200 | 25,000 |  |

* Finished Goods 86,400 (= 4,800 units X Rs. 18)

Working Note 1: Calculation of production cost per unit (using variable costing)
DM ( 5 kg X Rs 2) $=10$
Wages $=6$
VMOH $=2$
Cost per unit $=18$
2 Raw materials purchase budget

|  | January | February | March | April |
| :--- | ---: | ---: | ---: | :---: |
| Production units | 24,200 | 24,800 | 24,200 | 25,000 |
| RM Consumption [@5 kg/unit] | 121,000 | 124,000 | 121,000 | 125,000 |
| Add: Ending Inventory | 62,000 | 60,500 | 62,500 |  |
| Total need | 183,000 | 184,500 | 183,500 |  |
| Less: Beginning Inventory | $* 60,500$ | 62,000 | 60,500 |  |
| RM Purhcase (Kg) | 122,500 | 122,500 | 123,000 |  |
| RM Purchase @ Rs. 2/kg | 245,000 | 245,000 | 246,000 |  |

* RM 121,000 (= 60,500 kg X Rs 2)

3. Cash Budget for 3 months from $1^{\text {st }}$ Jan. to $31^{\text {st }}$ March

|  | January | February | March | April |
| :--- | ---: | ---: | ---: | :---: |
| Opening Balance | $* 25,000$ | 28,280 | 25,420 |  |
| Add: Receipt |  |  |  |  |


| Collection from Debtors <br> (W/N 2) | 438,080 | 450,000 | 486,080 |  |
| :--- | ---: | ---: | ---: | ---: |
| Amount available for payment | 463,080 | 478,280 | 511,500 |  |
| Less: Payment |  |  |  |  |
| Pay to creditors | $* 225,000$ | 245,000 | 245,000 | $246,000 \mathrm{~B} / \mathrm{S}$ |
| Wages (Working Note 3) | $* 124,800$ | 145,200 | 148,800 | $145,200 \mathrm{~B} / \mathrm{S}$ |
| VMOH (Working Note 4) | 48,400 | 49,600 | 48,400 |  |
| Fixed Manufacturing | 10,000 | 10,000 | 10,000 |  |
| Overhead | 50,000 |  |  |  |
| Pay to machine supplier | 16,600 |  |  |  |
| Tax | 474,800 | 449,800 | 452,200 |  |
| Total Payment | $(11,720)$ | 28,480 | 59,300 |  |
| Surplus (Deficits) | 40,000 | - | - | $4,000 \mathrm{~B} / \mathrm{S}$ |
| Borrowings | - | $(3,000)$ | $(33,000)$ | $4000 \mathrm{C} 12 \% \mathrm{X3} 3 / 12$ |
| (Bank loan repayment) | - | $(60)$ | $(990)$ | 400 B |
| (Interest payment) |  |  |  | $=120 \mathrm{~B} / \mathrm{S}$ |
| Closing Balance | 28,280 | 25,420 | 25,310 | $\mathrm{~B} / \mathrm{S}$ |

- Opening Balance
$11,720+25,000=36,720$
$28,480-25,000=3,480$
Interest $=3,000 \mathrm{X} 12 \% \mathrm{X} 2 / 12=60$
$59,300-25,000=34,300$
Interest $=33,000 \mathrm{X} 12 \% \mathrm{X} 3 / 12=990$
$34,000 \times 12 \%$ X $3 / 12=1,020($ Not possible $)$

4. Income Statement for 3 months from $1^{\text {st }}$ Jan. to $31^{\text {st }}$ March

| Sales units | $(24,000+25,000+24,000)$ | 73,000 units |
| :--- | :--- | ---: |
| Budgeted Sales Revenue | $(73,000$ units X Rs. 20) | $1,460,000$ |
| Less: COGS | $(73,000$ units X Rs.18) | $1,314,000$ |
|  | W/N 1 | 146,000 |
| Gross Profit |  |  |
| Less: Other Expenses |  | 30,000 |
| FMOH | 5,840 |  |
| Discount |  | 3,170 |

5. Budgeted Balance Sheet as on end $31^{\text {st }}$ March

| Capital + Liability | Rs. | Asset | Rs. |
| :--- | ---: | :--- | ---: |
| Capital | 500,000 | Building | 200,000 |
| Profit and Loss Account | 328,990 | Machine | 160,000 |


| 220,000 + 1,08,990 |  |  |  |
| :--- | ---: | :--- | ---: |
| A/C Payable | 246,000 | Investment | 40,000 |
|  |  | Inventory: <br> R/M $(62,500 \mathrm{~kg} \mathrm{X} \mathrm{Rs} \mathrm{2)}$ | 125,000 |
| Outstanding Wages | 145,200 | Finished Goods | 90,000 |
|  |  | $(5,000$ units X Rs 18) |  |
| Bank loan | 4,000 | Account Receivable | 584,000 |
| Interest Payable | 120 | Cash in Hand | 25,310 |
|  | $1,224,310$ |  |  |

Wrking Note 2 Cash collection from debtors

|  | November | December | January | February | March | April |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Credit Sales amount | 460,000 | 400,000 | 480,000 | 500,000 | 480,000 |  |
| (sales units X SP) |  |  |  |  |  |  |
| This month 20\% | 92,000 | 80,000 | 96,000 | 100,000 | 96,000 |  |
| (Discount 2\%) |  |  | $(1,920)$ | $(2,000)$ | $(1,920)$ |  |
| Last month 40\% |  | 184,000 | $* 160,000$ | 192,000 | 200,000 | 384,000 |
| Before last month 40\% |  |  | $* * 184,000$ | $* 160,000$ | 192,000 | 200,000 |
| Total collection |  |  | 438,080 | 450,000 | 486,080 | B/S |

* Chiatra sales 320,000
** Falgun sales 184,000
Discount $=1,920+2,000+1,920=5,840(\mathrm{P} / \mathrm{L}$ account $)$
Working Note 3: Wage payment budget

|  | January |  | February | March |
| :--- | ---: | :--- | ---: | ---: |
| Production units | 24,200 |  | 24,800 | 24,200 |
| Wages @ Rs 6 per unit | 145,200 |  | 148,800 | 145,200 |

Working Note 4: VMOH budget

|  | January | February | March |
| :--- | ---: | ---: | ---: |
| Production units | 24,200 | 24,800 | 24,200 |
| VMOH @ Rs. 2 per unit | 48,400 | 49,600 | 48,400 |

## Cost of Goods Sold Budget

| Opening Stock of Raw Materials | $(60,500 \mathrm{~kg} \mathrm{X} \mathrm{Rs} \mathrm{2)}$ | 121,000 (Opening Balance) |
| :--- | :--- | :--- |
| Add: Raw Material Purchased | $(368,000 \mathrm{~kg} \mathrm{X} \mathrm{Rs} \mathrm{2)}$ | 736,000 (RM Purchased budget) |
| RM avaiable for consumption | $428,500 \mathrm{~kg} \mathrm{X} \mathrm{Rs} \mathrm{2)}$ | 857,000 |
| Less: Closing Stock of RM | $(62,500 \mathrm{~kg} \mathrm{X} \mathrm{Rs} \mathrm{2)}$ | 125,000 |
| RM Consumption | $(366,000 \mathrm{~kg} \mathrm{X} \mathrm{Rs} \mathrm{2)}$ | 732,000 |
| Wages | $(73,200$ units X Rs 6) | 439,200 |
| Variable Manufacturing Overhead | $(73,200$ units X Rs 2) | 146,400 |
| Production cost | $(73,200$ units X Rs 18) | $1,317,600$ |
| Add: Openning Stock of Finished Goods |  | 86,400 (Opening Balance) |
| Goods avaiable for sales |  | $1,404,000$ |
| Less: Closing Stock of Finished Goods | $(5,000$ units X Rs. 18) | 90,000 |
| Cost of goods sold |  | $1,314,000$ |

## ILLUSTRATION 5

A Company wants a master budget for the next three months beginning January 19x2. It desires an ending minimum cash balance of Rs. 4,000 each month. Sales are forecasted at an average selling price of Rs. 4 per unit. Inventories are supposed to equal $125 \%$ of the next month sales in units except for the month end of March. The March 31 inventory in units should be $75 \%$ of the next month sales. Merchandise costs are Rs. 2 per unit. Purchases during any given month are paid in full during the following month. All sales are in credit, payable within thirty days but experience has shown that $40 \%$ of current sales is collected in the current month, $40 \%$ in the next month, and $20 \%$ in the next month after. Bad debts are negligible.

| Monthly Operating Expenses are as follows: |  |  |
| :--- | :--- | :--- |
| Wages and Salaries | Rs. 10,000 |  |
| Insurance Expired | Rs. $\quad 200$ |  |
| Depreciation | Rs. | 150 |
| Miscellaneous | Rs. | 2,000 |
| Rent | Rs. | $100+10 \%$ of Sales |

Cash dividend of Rs. 1,000 are to be paid quarterly beginning January 15, and are declared on the fifteen of the previous month. All operating expenses are paid as incurred except insurance, depreciation and rent. Rent of Rs. 100 is paid at the beginning of each month and additional $10 \%$ of sales is paid quarterly of the month following the quarter. The next settlement is due on January 10.The Company plans to buy some new furniture and fixtures for Rs. 2,000 cash in March.

Money can be borrowed and repaid in multiples of Rs. 500; at an interest is $18 \%$ per annum. Management wants to minimize borrowing and repay rapidly. Interest is computed and paid when the principal is repaid. Assume that borrowing takes place at the beginning and repayments at the end of the months in question. Money is never borrowed at the beginning and repaid at the end of the same month. Compute interest to the nearest Rupees.

Balance Sheet (December 31, 19X1)

| Cash | 4,000 | Account Payable | 28,750 |
| :--- | ---: | :--- | ---: |
| Account Receivable | 16,000 | Dividend Payable | 1,000 |
| Inventory | 31,250 | Rent Payable | 7,000 |
| Un-expired Insurance | 1,200 |  |  |
| Fixed Assets (Net) | 10,000 | Equity Share | $\underline{25,700}$ |
|  | 62,450 |  | 62,450 |

Recent and Forecasted Sales are:

| October | Rs. 30,000 |
| :--- | ---: |
| November | 20,000 |
| December | 20,000 |
| January | 50,000 |
| February | 60,000 |
| March | 30,000 |
| April | 36,000 |

Required: Master Budget for first three month of $19 \times 2$.

## Solution

1. Goods Purchase Budget

|  | Jan | Feb | March | April |
| :--- | :--- | :--- | :--- | :--- |


| Budgeted Sales revenue | 50,000 | 60,000 | 30,000 | 36,000 |
| :--- | :---: | :---: | :---: | :---: |
| Less: Gross Profit (50\% on sales) | 25,000 | 30,000 | 15,000 | 18,000 |
| Cost of sales | 25,000 | 30,000 | 15,000 | 18,000 |
| Add: Desired Closing Stock | 37,500 | 18,750 | 13,500 |  |
| Total Need | 62,500 | 48,750 | 28,500 |  |
| Less: Opening Stock | $* 31,250$ | 37,500 | 18,750 |  |
| Purchase Amount | 31,250 | 11,250 | 9,750 |  |

## 2. Operating Expenses Budget

|  | January | February | March | Total |
| :--- | ---: | ---: | ---: | :--- |
| Wages and Salaries | 10,000 | 10,000 | 10,000 | 30,000 |
| Insurance expired | 200 | 200 | 200 | 600 |
| Depreciation | 150 | 150 | 150 | 450 |
| Miscellaneous | 2,000 | 2,000 | 2,000 | 6,000 |
| Rent (Fixed) | 100 | 100 | 100 | 300 |
| Rent (Variable) $10 \%$ of Sales | 5,000 | 6,000 | 3,000 | 14,000 |
| Total | 17,450 | 18,450 | 15,450 | 51,350 P/L A/C |

3. Cash Budget

|  | Jannuary | February | March | April |
| :--- | ---: | ---: | ---: | :---: |
| Opening Balance | $* 4,000$ | 4,150 | 4,165 |  |
| Add: Receipt |  |  |  |  |
| Collection from debtors (W/N - 1) | 32,000 | 48,000 | 46,000 |  |
| Amount available for payment | 36,000 | 52,150 | 50,165 |  |
| Less: Payments |  |  |  |  |
| Pay to creditors | $* 28,750$ | 31,250 | 11,250 | 9,750 A/C Payable |
| Wages and Salaries | 10,000 | 10,000 | 10,000 |  |
| Miscellaneous | 2,000 | 2,000 | 2,000 |  |
| Rent (Fixed) | 100 | 100 | 100 |  |
| Rent (Variable) | $* 7,000$ | - | - | 14,000 Rent payble |
| Dividend payment | $* 1,000$ | - | - |  |
| Purchase Furniture | - | - | 2,000 |  |
| Total Payment | 48,850 | 43,350 | 25,350 |  |
| Surplus (Deficits) | $(12,850)$ | 8,800 | 24,815 |  |
| Borrowings | 17,000 | - | - |  |
| (Repayment - Principal) | - | $(4,500)$ | $(12,500)$ |  |
| (Repayment - Interest) | - | $(135)$ | $(563)$ |  |
| Closing Balance | 4,150 | 4,165 | 11,752 |  |

*From Opening Balance Sheet
Interest Expenses $=4500 * 18 \% * 2 / 12=135 ; 12500 * 18 \% * 3 / 12=563$
4. Income Statement from $1^{\text {st }}$ Jan to $31^{\text {st }}$ March

| Sales Revenue |  | $1,40,000$ |
| :--- | ---: | ---: |
| Less: Cost of Goods sold @50\% of Sales |  | 70,000 |
| Gross Margin |  | 70,000 |
| Less: Other Expenses |  |  |


| Operating Expenses | 51,350 |  |
| :--- | ---: | ---: |
| Intereset (135+563) | 698 | 52,048 |
| Net profit before tax |  | 17,952 |
| Less: Provision for dividend |  | 1,000 |
| Net Profit transfer to Balance Sheet |  | 16,952 |

## 5. Balance Sheet (as on March 31, 19X2)

| Account Payable | 9,750 | Cash | 11,752 |
| :---: | :---: | :---: | :---: |
| Dividend Payable | 1,000 | Account Receivable | 30,000 |
| Rent Payable | 14,000 | Inventory | 13,500 |
| P/L Account | 16,952 | Un-expired Insurance | 600 |
| Equity Share | 25,700 | Fixed Assets (Net) | 11,550 |
|  | 67,402 |  | 67,402 |

$$
\begin{aligned}
& \text { Insurance }=1,200-600=6000 \\
& \text { Fixed Assets }=10,000+2,000-450=11,550
\end{aligned}
$$

Working Note 1: Calculation of Cash collection

|  | Nov | Dec | Jan | Feb | March | April |
| :--- | ---: | ---: | ---: | ---: | ---: | :---: |
| Credit Sales | 20,000 | 20,000 | 50,000 | 60,000 | 30,000 |  |
| This month's Sales 40\% | 8,000 | 8,000 | 20,000 | 24,000 | 12,000 |  |
| Last month's Sales 40\% |  | 8,000 | $* 8,000$ | 20,000 | 24,000 | 18,000 |
| Before Last month's sales 20\% |  |  | $* * 4,000$ | $* 4,000$ | 10,000 | 12,000 |
| Total collection |  |  | 32,000 | 48,000 | 46,000 |  |

* December sales
**November Sales


## References

Anthony, R.N., Hawkins, D.F. \& Merchant, K.A. (2012). Accounting: Text and cases. The McGraw-Hill Companies
Atkinson, A. A., Kaplan, R. S., Matsumura, E. M., Young, S. M., \& Kumar, G. A. (2104). Management accounting: Information for decision-making and strategy execution. Pea\$on Education
Colin, D. (1995). Management and cost accounting. ELBS, London
Dangol, R. M. \& Dangol, J. (2019). Management accountancy. Taleju Prakashan, Kathmandu
Hilton. R. W. \& Platt, D. E. (2014). Managerial accounting: Creating value in a global business environment. McGraw-Hill Education
Horngren, C. T., Datar, G. F., Rajan, M. V., \& Lttner, C. (2011). Cost accounting: A managerial emphasis. Pea\$on Education
Horngren, C. T., Sundem, G. L., \& Stratton, W. O. (1999). Introduction to management accounting. Prentice Hall India

