Chapter 12
Budgeting

Budgeting is a powerful tool that helps the management in performing its functions such as planning, coordinating, and controlling the operations efficiently
Budgeting represents the formation of the budget with the help and coordination of all or the various departments of the firm.

Budgeting control

Budgetary control is a tool for the management to allocate responsibility and authority in planning for future and to develop a basis of measurement to evaluate the efficiency of operations.

Types of Budget

Functional Budget

- ❖ Sales Budget
- ❖ Production Budget
- ❖ Raw Material used and purchased Budget
- ❖ Direct Labor Budget

Financial Budget

- ❖ Trade Receivable Budget
- ❖ Trade Payable Budget
- ❖ Cash Budget
- ❖ Master Budget

Advantages of Budgetary Control System

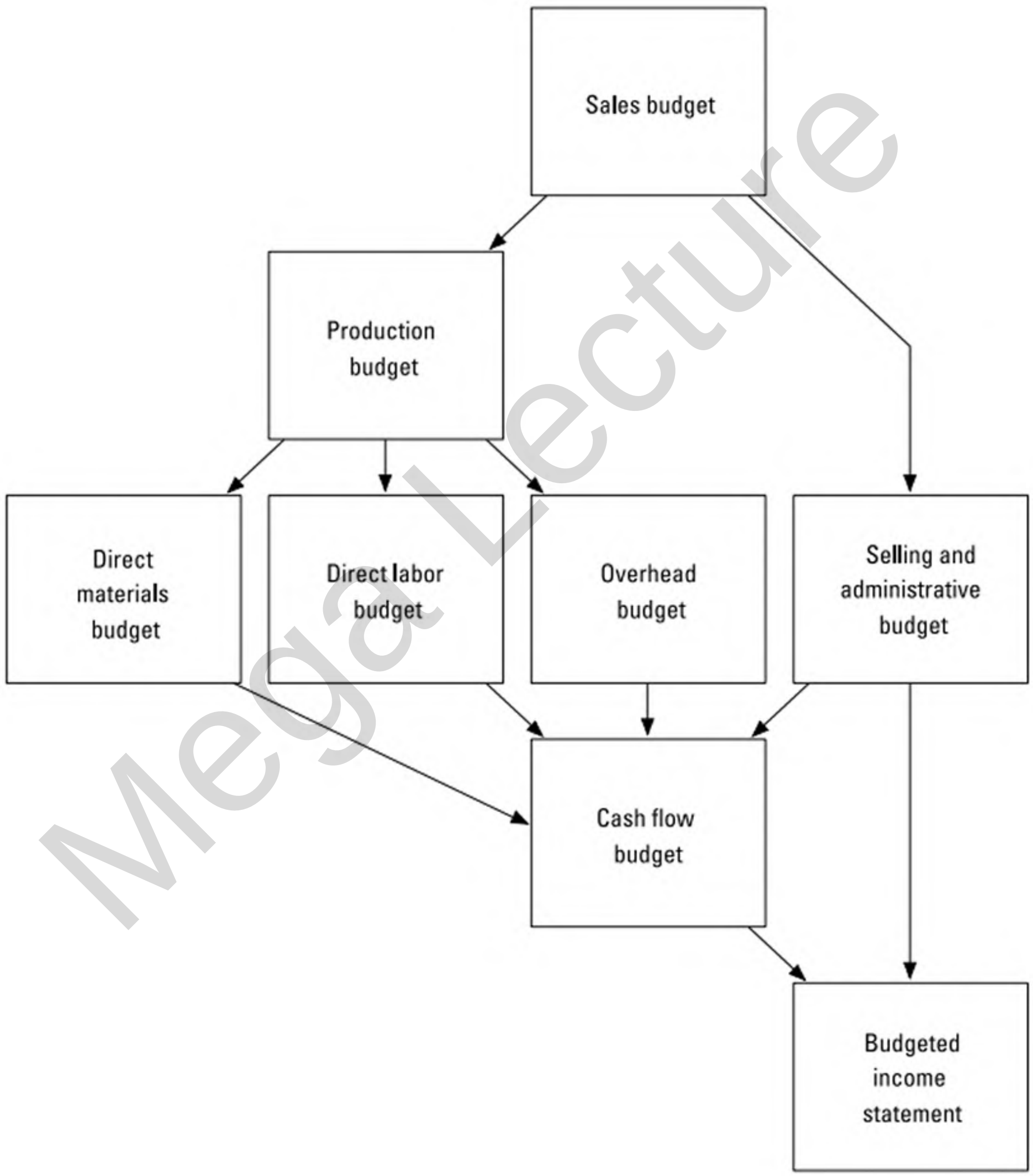
- ✓ Compels management to plan for the future
- ✓ Aids coordination and encourages communication
- ✓ Promotes responsibility accounting.
- ✓ May motivate employees

Disadvantages of Budgetary Control System

- × Not all staff may accept the budget.
- × Time consuming
- × Specialist staff required which may increase cost

Behavior aspects of budgeting

The focus of behavior is the degree of participation in developing the master budget that senior management is willing to delegate to midlevel managers and lower. This has become one of the most significant aspects of the budget process because in reality the approved budget represents a consensus and a compromise reached between many people within the organization. The agreement between these individuals reflects a self-imposed commitment to achieving the budgeted goals they have set collectively.



Limiting Factor

The limiting factor is that factor which, at any given time, effectively limits the activities of an organization. It may be customer demand, production capacity, shortage of labour, material, space of finance. Because such a constraint will have a pervasive effect on all plans and budgets, the limiting factor must be identified and its effect on each of the budgets carefully considered during the budget preparation process.

Formats of budgets

1. Sales Budget

Sales budget is the first and basic component of **master budget** and it shows the expected number of sales units of a period and the expected price per unit. It also shows total sales which are simply the product of expected sales units and expected price per unit.

	SALES BUDGET				
	March	April	May	June	July
Parts (units)					
Revenue £					

2. Production Budget

The production budget shows the number of units of a product to produce to meet anticipated sales demand. Production requirements are determined from the following formula.

Budgeted Sales Units + Desired Ending Finished Goods Units − Beginning Finished Goods Units = Required Production Units

	Month 1	Month 2	Month 3	Month 4
Sales units	XX	XX	XX	XX
Add: closing F.G units	XX	XX	XX	XX
Less: Opening F.G units	(XX)	(XX)	(XX)	(XX)
Production	**XX**	**XX**	**XX**	**XX**

3. Raw Material used and Purchased Budget

The direct materials budget shows both the quantity and cost of direct materials to be purchased. The quantities of direct materials are derived from the following formula

Direct Materials Units Required for Production + Desired Ending Direct Materials Units − Beginning Direct Materials Units = Required Direct Materials Units to Be Purchased

	Month 1	Month 2	Month 3	Month 4
Raw material used in production	XX	XX	XX	XX
Add: closing raw material	XX	XX	XX	XX
Less: Opening material	(XX)	(XX)	(XX)	(XX)
Purchases	**XX**	**XX**	**XX**	**XX**

4. Labour Budget

Like the direct materials budget, the direct labor budget contains the quantity (hours) and cost of direct labor necessary to meet production requirements. The total direct labor cost is derived from the following formula

Units to Be Produced × Direct Labor Hours per Unit × Direct Labor Cost per Hour = Total Direct Labor Cost

	Dept 1	Dept 2	Dept 3
Production	XX	XX	XX
Labour hours	XX	XX	XX
Number of employees	XX	XX	XX
Labour cost	**XX**	**XX**	**XX**

5. Trade Receivables Budget

This budget helps to estimate the amount owed to the business by its trade receivables (debtors) at the end of a specific period say one month.

Trade receivables (debtors) budget

		Months			
		1	2	3	4
Trade receivables (debtors) at start		xxxx	xxxx	xxxx	xxxx
Add	Credit sales	xxxx	xxxx	xxxx	xxxx
		xxxx	xxxx	xxxx	xxxx
Less	Cash received from trade receivables (debtors)	xxxx	xxxx	xxxx	xxxx
	Bad debts	xxxx	xxxx	xxxx	xxxx
	Discount allowed	xxxx	xxxx	xxxx	xxxx
Trade receivables (debtors) at end		xxxx	xxxx	xxxx	xxxx

Cash sales and transactions relating to cash sales are not included in trade receivables (debtors) because we know that trade receivables (debtors) arise due to credit sales and not because of cash sales.

6. Trade Payables Budget

This budget helps to estimate the amount owed by the business to its trade payables (creditors) at the end of a specific period say one month.

Trade payables (creditors) Budget

	Months			
	1	2	3	4
Trade payables (creditors) at start	xxxx	xxxx	xxxx	Xxxx
Add Credit purchases	xxxx	xxxx	xxxx	Xxxx
	xxxx	xxxx	xxxx	Xxxx
Less Cash paid to trade payables (creditors)	xxxx	xxxx	xxxx	Xxxx
Discount received	xxxx	xxxx	xxxx	Xxxx
Trade payables (creditors) at end	xxxx	xxxx	xxxx	Xxxx

7. Cash Budget

	Month 1	Month 2	Month 3	Month 4
Receipts	XX	XX	XX	XX
Cash sales:	XX	XX	XX	XX
Received from trade receivables:				
1 month	XX	XX	XX	XX
2 month	XX	XX	XX	XX
Disposal of non current asses		XX		
Total (a)	**XX**	**XX**	**XX**	**XX**
Payments				
Payment to suplliers	XX	XX	XX	XX
Expenses paid	XX	XX	XX	XX
Cash drawings	XX	XX	XX	XX
Loan repayment		XX		
Total (b)	**XX**	**XX**	**XX**	**XX**
Net cash flow (a-b)	**XX**	**XX**	**XX**	**XX**
Opening cash/bank balance	XX	XX	XX	XX
Closing cash/bank balance	**XX**	**XX**	**XX**	**XX**

Master Budget

- Income statement
- Statement of financial position

Flexible Budget

A flexible budget is a budget which recognises different cost behaviour patterns and is designed to change as volume of activity changes
It is prepared when actually activity is different from budgeted activity

Flexed budget

This is prepared at the end of budget period. It provides a meaningful estimate of costs and revenues and is based on the actual level of output.

Fixed Budget

A fixed budget is a budget which is set for a single activity level
Fixed budget does not reflect what has actually happened as it does not compare like with like.
Does not allow for meaningful variance analysis so does not aid performance evaluation

Past Paper Questions

Q # 1 Gala Ltd manufactures one product, the Durrell. Its sales for a six month period are expected to be:

2011	Durrells
July	800
August	1050
September	1400
October	1100
November	950
December	850

On 1 July Gala Ltd expects to have 100 Durrells in inventory. It intends to hold inventory levels of 250 Durrells at the end of July and August, 200 at the end of September and October, and 100 thereafter.

REQUIRED

(a) Prepare a monthly production budget for Gala Ltd for the six months July to December. [6]
Each Durrell requires 2 kilos of raw material. Until 31 August this is expected to cost $4 per kilo and $4.50 from 1 September to 30 November and $5 per kilo thereafter.

REQUIRED

(b) Prepare a monthly raw materials purchasing budget for the six months July to December. [6]
Selling prices for the Durrell are expected to be $190 each in July, August and September and $200 each thereafter.

All sales are on credit.

50% of debtors pay in the month following sale and receive 4% cash discount, and the remainder pay in the second month following sale.

REQUIRED

(c) Calculate the expected value of trade receivables on 1 September. [2]
(d) Prepare a monthly trade receivables budget for the four months September to December. [21]
(e) State three advantages to Gala Ltd of using budgets. [3]
(f) (i) Name one item which may appear in an income statement (profit and loss account) which cannot appear in a cash budget. [1]
(ii) Name one item which may appear in a cash budget which cannot appear in an income statement (profit and loss account). [1]

June 2011

Q # 2 Ada Campellini runs a business which retails high quality clothing. It is particularly busy during the festive season.
The budgeted sales and purchases figures for September 2012 to January 2013 are as follows:

	September	October	November	December	January
	$	$	$	$	$
Sales	215 000	225 000	310 000	425 000	195 000
Purchases	175 000	190 000	245 000	135 000	135 000

Additional information:

1 50% of sales are expected to be paid for by cash and these customers will receive a 6% discount.
50% of the **remaining** sales are expected to be paid in the following month and these customers will receive a 3% discount.
The remainder will pay 2 months after the sale.

2 30% of purchases are expected to be paid for in the month of purchase and will receive a 4% discount.
40% of purchases are expected to be paid for in the month after purchase and will receive a 2% discount.
The remainder are paid for 2 months after purchase.

3 The inventories held on 1 November 2012 are budgeted at $180 000.
The inventories held on 31 January 2013 are budgeted at $129 000.

4 Total general expenses are budgeted at $18 000 in November 2012 with an expected 10% rise in December and a 15% reduction (on the December total) in January 2013.
All general expenses are expected to be paid in full in the month in which they occur.

5 The depreciation on the non-current assets acquired before November 2012 will be $1 750 per month.

6 On 1 November 2012 Ada will acquire a new storage system at a cost of $24 000 and will pay 50% of the cost immediately. The remainder will be paid in equal instalments over the following 12 months without any interest charges.

This new non-current asset will be depreciated at 10% per annum on a monthly basis.

7 Ada will make drawings of $3 000 every month except for December 2012. In this month she expects to draw 1.5% of the month's expected sales.

8 The bank balance at 1 November 2012 is expected to be $34 850.

REQUIRED:

(a) Prepare a cash budget, in columnar format, for the 3 months commencing with November 2012. [30]

(b) Prepare a budgeted income statement (profit and loss account) in as much detail as possible from the given information for this 3 month period ending in January 2013. [10]

November 2011

Q # 3 Hiemstra Limited manufactures a single product. It operates a flexible budgetary control system.

REQUIRED

(a) Explain what is meant by flexible budgetary control. [3]

(b) Explain why flexible budgetary control is better than a fixed budget to monitor the costs of a business. [4]

The budgeted sales in units for the next three months are:

Month	Units
1	1200
2	1400
3	1600

At the start of month 1 it will have 200 units of finished goods in stock. It wishes to reduce the closing stock of finished goods by 20 units a month.

REQUIRED

(c) Prepare the company's production budget in units for months 1-3. [8]

Additional information:

The revenue and cost information for one unit:

Selling price	$29 per unit
Direct material	2 kilograms of material at $3 per kilogram
Direct labour	0.5 hours at $10 per hour

Budgeted factory semi-variable costs are:

Output in units	Factory overheads
4000	$31 000
4500	$33 000

Other budgeted factory fixed costs are $23 500.

REQUIRED

(d) Calculate the break-even point in units and in value. [7]

Additional information:

The actual results for the three-month period were:

Sales	4400 units
Selling price	$28 per unit
Direct material	2 kilograms at $4 per kilogram
Direct labour	0.4 hours at $10 per hour
Factory overheads	$36 200
Fixed overheads	$18 000

REQUIRED

(e) Prepare a flexible budget statement for the three-month period, clearly showing the actual and budgeted data and any variances. [10]

(f) Explain why, despite an increase in units sold, the actual profit was less than the budgeted profit. [8]

June 2012

Q # 4 Zeresh Limited provides the following information from its sales budget for 2014.

	Units	Sales price per unit $
January	10 000	20
February	11 000	20
March	11 000	21
April	12 000	21
May	12 000	21
June	14 000	24

Additional information

Inventory of finished goods at each month end is maintained at 20% of the units expected to be sold in the following month.

Each unit requires 0.5 kilos of raw materials, which costs $3 a kilo.

Half a month's inventory of raw materials is maintained, based on the expected usage in the following month.

The total production cost of each unit is $11 and this is the value used for inventory valuation.

REQUIRED

(a) (i) Prepare the production budget for each of the five months January to May 2014. [11]

(ii) Prepare the purchases budget for raw materials for each of the four months January to April 2014. Show purchases of raw materials in both kilos and dollars. [9]

(b) Calculate the value of finished goods and raw materials inventory at both 1 January 2014 and 30 April 2014. [4]

(c) (i) Prepare a summarised manufacturing account for the four month period ending 30 April 2014. [6]

(ii) Prepare the trading account section of the income statement for the same period. [6]

(d) State two advantages and two disadvantages to a company of using a budgetary control system. [4]

June 2013

Q # 5 Alfonso Trading Limited provides the following budgeted data for 2014.

	January	February	March	April	May
Budgeted sales (units)	5000	5200	5600	5800	5500
Sales price per unit	$10	$10	$9	$9.50	$10
Purchase price per unit	$4	$4	$4.20	$4.20	$4.20

The following information is also available:

1 The company uses the FIFO method of inventory valuation.

2 The directors aim to maintain inventory levels at 25% of the following month's sales.
They expect to achieve this on 31 December 2013 but know it will not be possible every month. The company can buy in a maximum of 5500 units in any one month.

3 All sales are on credit. 50% of customers pay in the month following sales and receive a cash discount of 4%. The remaining customers pay two months after sale.

4 Trade receivables on 1 January 2014 are expected to be:
$24 000 from November's sales
$49 000 from December's sales

5 Trade payables on 1 January 2014 are expected to total $20 000. The company pays for all its purchases in the month after purchase, receiving a discount of 5% for prompt payment.

REQUIRED

(a) Prepare for each of the four months January to April 2014:

(i) Purchases budget. Show purchases for each month in both units and value. [8]

(ii) Trade receivables budget. [14]

(iii) Trade payables budget. [10]

(b) Prepare an extract from the statement of financial position at 30 April 2014 showing current assets and current liabilities. [3]

Additional information relating to April 2014 is as follows:

	$
Budgeted total variable costs	24 900
Budgeted total fixed costs	16 700

REQUIRED

(c) Calculate for April 2014:

(i) the sensitivity of performance to changes in the selling price [2]

(ii) the selling price per unit at which profit would be zero [1]

(iii) the sensitivity of performance to changes in variable cost. [2]

June 2013

Q # 6 MW Limited manufactures a single product, a Tu. The finance director prepares monthly budgets.

The following budgeted information is available for the first three months of 2015.

1 The selling price will be fixed at $60 per unit. In January 2015 sales are expected to be 24 000 units. It is anticipated that there will be a 5% increase in sales volume in every subsequent month up to April 2015.

2 The finished goods inventory level at the end of each month will be maintained at one-third of the expected sales volume in the following month. The inventory of finished goods at 31 December 2014 is expected to be 7500 units with a value of $242000. The finished goods inventory value at 31 March 2015 is expected to be $298000.

3 Each unit of Tu requires 10 kilos of raw material. The closing inventory of raw materials each month is expected to meet 20% of the production requirement of the following month. The inventory of raw materials at 31 December 2014 is expected to be 48000 kilos. The purchase price will remain at $1.50 per kilo.

4 Direct labour for the first three months of 2015 is expected to be $850000. Manufacturing overhead is expected to be 50% of direct labour.

REQUIRED

(a) Prepare the sales budget for the period January to March 2015. State the units and revenue for each month. [6]

(b) Prepare the production budget for the period January to March 2015. State the units for each month. [9]

(c) Prepare the purchases budgets for the period January to March 2015. State the units and cost for each month. [15]

(d) Prepare the budgeted trading section of the income statement for the three months ending 31 March 2015. [10]

June 2014

Q # 7 The directors of Drosnan Retail Limited provide the following budgeted information.

	Revenue	Purchases	Monthly depreciation	Administration costs
2014	$	$	$	$
November	24 000	14 000	120	6 300
December	26 000	17 000	120	6 200
2015				
January	30 000	18 000	120	6 200
February	26 000	15 000	120	6 800
March	28 000	19 000	150	7 100
April	32 000	13 000	150	6 700

Other information is as follows.

1. 10% of all revenue is cash sales.

2. 50% of credit customers pay in the month following the sale and receive a 4% cash discount. Remaining trade receivables pay in the second month following the sale.

3. All purchases are on credit and are paid for in the month following purchase, after deducting a 5% early settlement discount.

4. The business rent is $9000 a year. This is paid in two equal instalments on 1 February and 1 August each year.

5. A dividend of $3100 is expected to be paid on 19 January 2015.

6. Administration costs are paid in the month after the one in which they are incurred.

7. The company expects to take out a bank loan of $10 000 with an interest rate of 7.8% per annum on 1 March 2015. This is to help finance the purchase of a new vehicle in March which is expected to cost $12000. The loan is to be repaid in full together with the interest after one year.

8. The company directors intend to sell an old vehicle in April 2015. This originally cost $7200 and by the date of disposal will have accumulated depreciation of $5100. The sales proceeds are anticipated to be $1100.

9. Inventory on 1 January 2015 is expected to have a value of $2100. Inventory on 30 April 2015 is expected to be valued at $3800.

10. It is expected that there will be a bank overdraft of $1303 on 1 January 2015.

REQUIRED

(a) Prepare a cash budget for each of the four months January to April 2015. [15]

(b) Prepare a budgeted income statement for the four month period ending 30 April 2015. [14]

(c) Explain two reasons why the change in the bank balance calculated in (a) is different from the profit figure in (b). [4]

(d) State two reasons why management prepares a cash budget. [2]

Nov 2014

Q # 8 Jamal is a sole trader. He is concerned that during the next few months he may have insufficient cash to pay his expenses.

He provides the following information.

1	Sales revenue
	$000
Actual sales per month	
2015	
September	135
October	187
Budgeted sales per month	
2015	
November	209
December	225
2016	
January	258
February	293

2 **20%** of the sales are for cash.

3 **80%** of the sales are on credit. 60% of the credit customers pay in the month following the sale. The balance is received two months after the sale.

4 Jamal purchases goods one month before their sale. He marks up his goods at a uniform rate of 50%. He pays for 75% of these goods in the month following purchase. The balance is paid two months after purchase.

5 Administration expenses are 10% of sales revenue and will be paid in the month following the sale.

6 Wages of $18 000 will be paid each month.

7 A delivery van costing $20 000 will be purchased in November 2015 and paid for in full by cheque.

8 Equipment which originally cost $25 000 will be sold on 1 December 2015 for $10 000.
Payment will be received, half at the time of sale and half one month later.

9 Equipment costing $30000 will be purchased in November 2015. A deposit of 30% will be paid on delivery. Equal monthly payments of 10% of the balance remaining will then be paid. (Ignore any interest)

10 Jamal intends to take cash drawings of $2000 per month in November and December 2015 and $3000 cash drawings each month in 2016.

11 A bank loan, $25 000, taken out in 2011 will be repaid in full in January 2016.

12 The balance on the business bank account at 1 November 2015 is expected to be $18 000 debit.

REQUIRED

Prepare a monthly cash budget for each of the three months from November 2015 to January 2016. Show all workings and work to the nearest thousand dollars. [30]

Nov 2015

Q # 9 The directors of Slanting Stores Limited have prepared a cash budget.

REQUIRED

(a) (i) State one difference between a cash budget and a statement of cash flows. [1]

(ii) State two benefits of preparing a cash budget. [2]

Additional information

Slanting Stores Limited makes all its sales on credit. Half of all credit customers pay in the month of sale, receiving a cash discount for early payment. The remainder pays in the following month. Purchases for resale are paid for in the month after purchase.
The cash budget for the three months ending 31 March 2017 is as follows:

Cash budget for the three months ending 31 March 2017

	January	February	March
	$	$	$
Opening balance	17 800	17 300	(1 600)
Receipts – month of sale	28 500	26 125	30 875
Receipts – month following sale	40 000	30 000	27 500
Payments to suppliers	(44 000)	(33 000)	(35 750)
Wages	(10 000)	(10 125)	(8 575)
Other expenses	(15 000)	(14 800)	(12 200)
Dividend paid	–	(8 000)	–
Purchase of non-current asset	–	(9 100)	–
Closing balance	17 300	(1 600)	250

REQUIRED

(b) Calculate

(i) The value of sales for each of the three months January to March 2017, [3]

(ii) The value of cash discount for each of the three months January to March 2017, [3]

(iii) The rate of cash discount given. [1]

(c) Prepare the trade receivables budget for each of the three months January to March 2017. Trade receivables at 1 January 2017 are expected to be $40 000. [8]

Additional information

The directors wish to eliminate the expected deficit in cash at the end of February. They are considering paying $15 000 in January for an advertising campaign which is expected to increase sales from February onwards.

REQUIRED

(d) Calculate the required increase in February's sales, after the advertising campaign, needed to avoid the negative cash balance. [5]

(e) Suggest two possible actions the directors could take, other than the advertising campaign, to improve the cash flow. [2]

Nov 2016

Q # 10 Sunil is preparing the annual budgets for his manufacturing business.

REQUIRED

(a) Explain what is meant by a master budget. [2]

Additional information

The finished goods inventory held at 1 January 2017 is expected to be 200 units. This is expected to increase by 20 units each month until 31 March 2017.

Unit sales from December 2016 to April 2017 are expected to be:

December	January	February	March	April
350	370	410	380	430

REQUIRED

(b) Prepare a production budget for each of the four months from January to April 2017. [4]

Additional information

1 Goods will be sold on credit with a selling price of $30 per unit. One third is expected to be received in the month of sale with the balance being received in the following month.

2 Other income will arise from the interest received on an investment of $50000 at 4% per annum. Interest will be received quarterly starting 1 January 2017.

3 Unit product costs are expected to be as follows:

	$
Direct materials	7
Direct labour	5
Overheads	6
	18

4 Direct materials will be purchased to meet the current month's production. Half the amount due will be paid by cash in the month of production and the balance will be paid in the following month. The number of units produced in December 2016 is expected to be 340.

5 Direct labour will be paid in the month that the cost is incurred.

6 Four-fifths of the overheads will be paid in the month in which they are incurred with the balance being paid in the following month.

7 Some new equipment is expected to be acquired on 1 January 2017 at a cost of $12 000. A 50% deposit will be paid on delivery, with the remainder being paid on 1 April 2017. This equipment will be depreciated at 10% using the straight-line method.

8 The bank account balance at 1 January 2017 is expected to be overdrawn by $10 450.

REQUIRED

(c) Prepare a cash budget for each of the three months from January to March 2017. [10]

(d) Analyse the options available to Sunil to avoid using a bank overdraft. [6]

(e) Advise Sunil whether or not he should apply for a loan rather than maintain an overdraft. Justify your answer. [3]

Nov 2016

Q # 11 Limited sells a single product at a mark-up of 25%. The following information is available:

1 Sales revenue:

	$
2017	
November	150 000
December	180 000
2018	
January	200 000
February	210 000
March	225 000
April	240 000

2 All sales are on credit and customers have a credit period of 2 months.

3 All purchases are on credit and suppliers are paid in the month following purchases.

4 Inventory level at the end of each month will be maintained at 25% of the sales volume in the following month.

5 Monthly operating costs are expected to be $18 000, which includes $3000 depreciation.

6 Balance at bank at 1 January 2018 is expected to be $4500.

REQUIRED

(a) Prepare the cash budget for each of the three months from January to March 2018. [9]

(b) Prepare a budgeted income statement for the three-month period ending 31 March 2018. [3]

(c) Prepare a reconciliation of the profit from operations for the three-month period ending 31 March 2018 to the net cash at 31 March 2018. [8]

Additional information

The directors are considering investing $60 000 in a new computer system to improve inventory control. According to the payment terms, 50% is payable in March 2018 and the remaining 50% in the following month.

REQUIRED

(d) Advise the directors whether or not they should purchase the new computer. Justify your answer. [5]

Nov 2017

Q # 12 Luke's business is due to start on 1 April 2018, selling a single product obtained from a sole supplier
The purchase price is $40 per unit and Luke will sell each unit at a mark-up of 60%.
He also wants to maintain inventory at a level sufficient to cover 50% of the next month's sales.
Budgeted unit sales for the first four months of trading are as follows:

April	May	June	July
5000	8000	4000	3000

The following information is also available:

1 Luke will introduce $150 000 capital into the business bank account on 1 April 2018. On the same day, equipment costing $48 000 will be purchased by cheque.

2 Equipment will be depreciated over a period of 60 months with no residual value.

3 All purchases are expected to be paid one month after the purchases are made.

4 All sales will be on credit.
20% of customers are expected to take a cash discount of 1.5% and pay in the month of sale.
30% of customers are expected to pay one month after the sales are made.
The remaining customers are expected to pay two months after the sales are made.

5 Monthly operating expenses will be paid in the month they are incurred. They are expected to be $43000 including depreciation.

REQUIRED

(a) State **two** benefits of preparing a cash budget. [2]

(b) Prepare the cash budget for **each** of the three months April, May and June 2018. [11]

(c) Comment on Luke's working capital management. [6]

(d) Prepare a budgeted income statement for the three-month period ending 30 June 2018. [6]

Nov 2017

Q # 13 Hyung Min manufactures glass vases.
Each vase passes through three production departments: casting, polishing and finishing.
Hyung Min had the following budgeted information for the year ending 31 January 2018.

1 All vases produced were expected to be sold. The selling price would be $60.25 each.

2 The fixed overheads were expected to be $240000 per annum and are absorbed on the basis of production labour hours.

3 The business is open for 50 weeks a year and each employee works for 40 hours a week.

4 The production costs per vase were expected to be:

	Casting department	Polishing department	Finishing department
Materials	25 grams at $8 per 100 grams	0	25 grams at $16 per 100 grams
Labour	40 minutes at $12 per hour	15 minutes at $8 per hour	2 hours at $14 per hour

5 A total of 24 000 vases were budgeted to be produced and sold for the year ending 31 January 2018.

Required

(a) Explain what is meant by the term 'budgetary control'. [2]

(b) Prepare the labour budget for the year ending 31 January 2018.
Clearly show the number of labour hours, the number of employees and the annual labour cost for each department. [9]

(c) Analyse the benefits to Hyung Min of using budgetary control in order to achieve his target profit. [6]

March 2018

Q # 14 C Limited is a small manufacturing company which operates a budgetary control system. The following information is available:

1 The budgeted sales in **units** for the first five months of 2019 are expected to be:

Jan	Feb	Mar	Apr	May
3500	4000	4750	3750	4250

2 The inventory of finished goods at 1 January 2019 is expected to be 10% of the budgeted January sales.

The monthly closing inventory of finished goods is to be maintained at the same percentage of the following month's budgeted sales.

3 There is a maximum inventory holding of 450 units.

Required

(a) State three advantages and two disadvantages of operating a budgetary control system. [5]

(b) Prepare the production budget in units for each of the four months from January to April 2019. [6]

Additional information

Each unit produced requires 3 kilos of raw material which is expected to cost $2 per kilo.
The opening inventory of raw material at 1 January 2019 is expected to be 200 kilos. The closing inventory of raw material is expected to remain the same for January. It is then expected to increase by 10% for February and a further 10% for March. After that it will remain unchanged.

(c) Prepare the purchases budget in both kilos and dollars for each of the four months from January to April 2019. [6]

Additional information

The directors are expecting an increase in demand later in the year and are considering a proposal to increase the storage capacity of the warehouse. The proposal will be beneficial to the company as it will allow an increase in the maximum inventory of finished goods holding to 500 units. The cost associated with the storage of each unit (holding cost) is $10.

(d) Calculate for the month of February the difference between the current holding cost for the closing inventory of finished goods and the holding cost if the proposal is accepted. [4]

Additional information

The cost of increasing the storage capacity is expected to be $20 000. A cash budget which includes this proposed cost has been prepared. This shows an overdrawn bank balance of $18 000 at the end of February.
However, the bank has refused to give the business an overdraft. The directors are now considering investing their own money as a loan to the business to finance the proposal.

(e) Discuss the advantages and disadvantages to the directors of investing their own funds into the business. [4]

June 2018

Q # 15 Stanley has been operating as a sole trader for many years with a year end of 31 December. He is preparing a cash budget and provides the following information for the three-month period from July 2019 to September 2019.

1 Total income of $120 000 from trade receivables for credit sales will be collected in equal amounts over the three-month period.

2 Cash sales are expected to be 25% of the cash collected each month from credit sales. There will be no trade receivables at 1 July 2019.

3 Total credit purchases of $75 000 will be paid for in equal amounts over the three-month period.

4 Cash purchases are expected to be 20% of the cash paid each month for credit purchases. There will be no trade payables at 1 July 2019.

5 The bank balance on 1 July 2019 is expected to be $3500.

6 Stanley is expected to receive a bank loan of $30 000 on 1 August 2019. Interest will be payable monthly in arrears at 5% per annum. No capital will be repaid until July 2020.

7 New machinery costing $60 000 will be purchased by cheque on 15 August 2019. Stanley's policy is to depreciate machinery at 25% per annum using the straight-line method. A full year's depreciation is charged in the year of acquisition.

8 Stanley rents part of his business premises for $6000 per annum and receives this rental income on a monthly basis.

9 General expenses are paid for in the month following that in which they are incurred. General expenses incurred in June amounted to $6000. These are expected to increase by 5% in July 2019 and a further 5% in August 2019.

10 Stanley makes annual cash drawings of $15 000 in equal instalments on 1 January and 1 July each year.

Required

(a) Explain three advantages of preparing a cash budget. [6]

(b) Prepare the cash budget for each of the three months beginning on 1 July 2019. [14]

Additional information

Stanley has calculated the payback period for the new machine as 4 years. He has been advised to evaluate his purchase using the net present value (NPV) method.

(c) Discuss how the NPV method might give Stanley a more accurate evaluation compared to the payback method. [5]

Nov 2018

Q # 16 Kuldeep has been in business for several years. He has prepared an annual expenditure budget based on various levels of activity. The following budgeted information is available:

Per unit	
direct materials	2 kilos at $1.50 per kilo
direct labour	0.5 hours at $10 per hour
direct expenses	$2

Last year the selling price per unit was $20. This is budgeted to increase by 2%.

Kuldeep also incurred semi-variable production overheads. He calculated that for 5000 units these were budgeted to be $15 000 and for 8000 units $21 000.

Annual fixed administration costs are expected to be $35 000.

At the end of the year the actual level of sales was 12 000 units.
There were no opening or closing inventories

Required

(a) Discuss two advantages of budgetary control. [4]

(b) Prepare the flexed budget for the year for 12 000 units. [13]

Additional information

The following actual data are available for 12 000 units:

	$
Sales revenue	242 600
Direct labour	63 000
Direct material	34 000

(c) Explain to Kuldeep what may have caused a difference between the flexed budget and the actual data. [4]

Additional information

Anne, his sister, has advised him that he should produce an annual fixed budget instead of an annual flexed budget.

(d) Assess two disadvantages to Kuldeep of producing an annual fixed budget. [4]

Nov 2018

Q # 17 Abida is a manufacturer of a product which has a seasonal peak demand during certain months. The following budgeted information is available

	June	July	August	September	October	November
Sales (units)	5000	12 000	18 000	6000	3000	1800

Each unit of production requires 1.5 kilos of direct material at $3 per kilo. There will be a cost increase of 10% in August, and this will be in force for the rest of the year.
The following information is also available.

1 Abida manufactures the product one month before the month of sale.

2 Closing inventory is 20% of the following month's sale.

3 Purchases of direct material are made one month before production starts. The company only purchases sufficient raw materials each month to meet the following month's production requirement

(a) Prepare for each of the four months June to September:

(i) the production budget in units [5]

(ii) the purchases budget in both kilos and dollars. [5]

Additional information

Abida encourages her managers to prepare their own departmental budgets.

(b) State two advantages and three disadvantages to Abida of continuing to allow the departmental managers to prepare their own budgets. [5]

Additional information

Abida had also prepared an annual budget for a second product she manufactures. The following budgeted information is available for the year for this product.

	Per unit
Selling price	$10.50
Direct materials at $3.30 per kilo	1.5 kilos
Direct labour at $6.50 per hour	0.5 hours

Fixed costs $27 000 per year.

The actual activity level for the year was 85000 units. The following actual information is also available

	Per unit
Selling price	$10.25
Direct materials at $3.00 per kilo	1.5 kilos
Direct labour at $7.00 per hour	0.6 hours

Fixed costs $28 000 for the year.

(c) State two reasons why flexible budgeting may help a business. [2]

(d) Prepare the flexed budgeted profit statement for the year. Your statement should show clearly the variances between the actual and flexed budgeted figures. [8]

Nov 2019

Q # 18 The sales budget of Z Limited for five months to 31 May 2020 is as follows

	Units
January	3000
February	4000
March	4800
April	4400
May	5000

The following information is also available

1 Finished goods inventory at the end of each month is equal to 20% of the following month's sales.

2 Each unit of finished goods requires three kilos of direct materials. Direct materials are purchased every month.

3 Direct materials inventory at the end of each month is equal to 10% of the following month's production needs

(a) (i) Explain the meaning of the term 'master budget'. [2]

(ii) State two components of a master budget (other than production and purchases). [2]

(b) Prepare the following budgets for each of the months of February and March 2020.

(i) Production budget (in units) [4]

(ii) Purchases budget (in kilos) [6]

Additional information

There will be an increasing trend in the purchase price of direct materials. The purchase price of direct materials for the first three months is expected to be:

	per kilo
	$
January	3.25
February	3.50
March	3.60

Z Limited adopts the first-in, first-out (FIFO) method to value direct materials inventory

(c) Calculate the budgeted cost of direct materials consumed for the month of February 2020. [4]

(d) Explain the impact on profit of using FIFO and average cost (AVCO) in the circumstances of rising direct materials price. [4]

Additional information

The marketing manager of the company is of the opinion that due to the unpredictable economic climate, it is not worthwhile to prepare a budget.
(e) Discuss whether or not the marketing manager's opinion is correct. Justify your answer. [3]

March 2020