
Cash Budgets

Murray LTD

2013

Step By Step Approach

PART A

Part A is asking you to calculate a production budget for four months. This is how many units need to be made each month. The layout will be the following

A. Sales in units	These figures are usually taken from the question
B. Add Closing stock	<ol style="list-style-type: none"> 1. There will be a certain percentage of stock to be produced for the next month 2. It will be calculated by using the sales units sold for the next month by the percentage given in the question 3. It is added back on because it is the company's policy to produce some units for the next period (Month)
C.	Add the figure for A and B together
D. Less Opening Stock	<ol style="list-style-type: none"> 1. Remember the closing figure for one month is the opening figure for the next month 2. We take this figure away because the units have been produced in the previous month as per the question
E. Required for Production	<ol style="list-style-type: none"> 1. Take the figure for D away from the figure calculate for C 2. This figure will be used later on in part B

Sales

Take these figures from the question

1. These figures are taken straight from the question

	Jan	Feb	Mar	April	May
Sales	7,000	8,000	10,000	9,000	10,500

Taken from the question

Closing Stock

An adjustment is needed here

1. See part (ii) from the question - it says
'Stock of finished goods are maintained at 70% of the following month's sales requirement.'
2. This means that at the end of Jan we should have 70% of February's sales in closing Stock.

3. The following workings show you how to calculate the closing stock figure for each month

Workings**January**

$$8,000 \text{ (Feb sales in units) } * 70\%$$

$$= \text{€}5,600$$

February

$$10,000 \text{ (March sales in units) } * 70\%$$

$$= \text{€}7,000$$

March

$$9,000 \text{ (April sales in units) } * 70\%$$

$$= \text{€}6,300$$

April

$$10,500 \text{ (May sales in units) } * 70\%$$

$$= \text{€}7,350$$

Even though it says for 4 months in the question, we need to calculate the closing stock for November as well. This will be needed for part B

May

$$11,000 \text{ units (June sales in units) } * 70\%$$

$$= \text{€}7,700$$

Tip - each of the unit's figure for the month is taken from the question

	Jan	Feb	Mar	April	May
Sales	7,000	8,000	10,000	9,000	10,500
+ Closing stock	(+) 5,600	(+) 7,000	(+) 6,300	(+) 7,350	(+) 7,700
	12,600	15,000	16,300	16,350	18,200

NOTE - Remember to add the sales figure and closing stock figure together to see what the total units that will be produced each month.

The next step will take the opening stock away for each month

Opening Stock

Take these figures from closing stock

- Remember the closing stock figure for one month is the opening stock figure for the next month.

- We take away the opening stock figure because it is already included in the previous months figure. In this question we don't know the closing stock figure for Jan so we will put is 0 (Zero) for the opening figure for July.
- The Opening stock figure for Feb will be the closing stock figure for Jan and this will continue for the other months

	Jan	Feb	Mar	April	May
Sales	7,000	8,000	10,000	9,000	10,500
+ Closing stock	(+) 5,600	(+) 7,000	(+) 6,300	(+) 7,350	(+) 7,700
	12,600	15,000	16,300	16,350	18,200
- Opening Stock	0	(+) 5,600	(+) 7,000	(+) 6,300	(+) 7,350

Required for Production

Take these figures from previous figures (workings)

- The formula to calculate the units needed for production is

$$\text{Sales} + \text{Closing stock} - \text{Opening Stock} = \text{Required for production}$$
- These figures will be used for Part B to help calculate the raw materials purchases budget

Production budget for Murray Ltd for the four months					
	Jan	Feb	Mar	April	May
Sales	7,000	8,000	10,000	9,000	10,500
+ Closing stock	(+) 5,600	(+) 7,000	(+) 6,300	(+) 7,350	(+) 7,700
	12,600	15,000	16,300	16,350	18,200
- Opening Stock	0	(+) 5,600	(+) 7,000	(+) 6,300	(+) 7,350
Required for Production	12,600	9,400	9,300	10,050	10,850

NOTE - Remember to include the heading - Production budget for Murray Ltd for the four months

PART B

Part B is asking you to calculate the raw materials purchases budget for four months. This is how much of a certain material is needed each month to produce the units that have to be made each month (calculated in part A). The layout is similar to Part A and look like this

A. Units of Production	Calculated in Part A - Required for Production
B. Materials Per Unit	<ol style="list-style-type: none"> 1. This figure is usually given in the question (see part (ii)) 2. Multiply this figure by the Units of production figure (A)
C. Required for production	Add the figure for A and B together
D. Add Closing stock	<ol style="list-style-type: none"> 1. There will be a certain percentage of stock of raw material to be held at the end of each month (see part (iii)) 2. It will be calculated by using the required for production for the next month and multiply it by the percentage given in the question 3. It is added back on because it is the company's policy to keep some raw materials from next month as part of this months (as per the question)
E. Less Opening Stock	<ol style="list-style-type: none"> 1. Remember the closing figure for one moth is the opening figure for the next month 2. We take this figure away because the units have been produced in the previous month as per the question
F. Required for Production	<ol style="list-style-type: none"> 1. Take the figure for D away from the figure calculate for C 2. This figure will be used late on in Part

Units of Production

Take these from Part A

1. Take these figures from part A
2. The unit for production figures are the figures that were calculate at the end of Part A
- Required for Production

	Jan	Feb	Mar	April	May
A. Units of Production	12,600	9,400	9,300	10,050	10,850

Taken form Part A

Materials Per Unit

Use the figure that is given in the question

1. See part (ii) from the question - it says

'Each product unit requires 5 kgs of material X which costs €2 per Kg'

	Jan	Feb	Mar	April	May
A. Units of Production	12,600	9,400	9,300	10,050	10,850
B. Materials Per Unit	(x) 5	(x) 5	(x) 5	(x) 5	(x) 5

Required for Production

An adjustment is needed here

1. This is where we multiply the figure in A (Units of Production) by B (Materials per Unit)

	Jan	Feb	Mar	April	May
A. Units of Production	12,600	9,400	9,300	10,050	10,850
B. Materials Per Unit	(x) 5	(x) 5	(x) 5	(x) 5	(x) 5
C. Required for Production	63,000	47,000	46,500	50,250	54,250

Closing Stock

An adjustment is needed here

1. See part (iii) from the question - it says

'Stocks of raw materials sufficient for 20% of the following month's requirement in kgs are held at the end of each month'

2. This means that at the end of Jan we should have 20% of Feb kgs in closing Stock

Workings**Jan**

47,000 (Feb requirements) * 20%
= €9,400

Feb

46,500 (Mar requirements) * 20%
= €9,300

Mar

50,250 (April requirements) * 20%
= €10,050

April

54,250 (November Requirements) * 620%
= €10,850

Note - This is the reason we have a column for May to help calculate the closing stock for April

4 months raw materials purchases budget (in units and €) for Murray Ltd					
	Jan	Feb	Mar	April	May
A. Units of Production	12,600	9,400	9,300	10,050	10,850
B. Materials Per Unit	(x) 5	(x) 5	(x) 5	(x) 5	(x) 5
C. Required for Production	63,000	47,000	46,500	50,250	54,250
D. + Closing Stock	(+) 9,400	(+) 9,300	(+) 10,050	(+) 10,850	
	72,400	56,300	56,550	61,100	

NOTE - Remember to add the figures for required for production and closing stock together
The next step will take the opening stock away for each month

Opening Stock

Take these figures from closing stock

- Remember the closing stock figure for one month is the opening stock figure for the next month.
- We take away the opening stock figure because it is already included in the previous months figure.

In this question we don't know the closing stock figure for Jan so we will put it as 0 (Zero) for the opening figure for Jan. The Opening stock figure for Feb will be the closing stock figure for Jan and this will continue for the other months

4 months raw materials purchases budget (in units and €) for Murray Ltd					
	Jan	Feb	Mar	April	May
A. Units of Production	12,600	9,400	9,300	10,050	10,850
B. Materials Per Unit	(x) 5	(x) 5	(x) 5	(x) 5	(x) 5
C. Required for Production	63,000	47,000	46,500	50,250	54,250
D. + Closing Stock	(+) 9,400	(+) 9,300	(+) 10,050	(+) 10,850	
	72,400	56,300	56,550	61,100	
E. - Opening Stock	0	(-) 9,400	(-) 9,300	(-) 10,050	

Required for Purchases

Take these figures from previous figures (workings)

- This is when you take away opening stock away from the figure above it.

4 months raw materials purchases budget (in units and €) for Murray Ltd					
	Jan	Feb	Mar	April	May
A. Units of Production	12,600	9,400	9,300	10,050	10,850
B. Materials Per Unit	(x) 5	(x) 5	(x) 5	(x) 5	(x) 5
C. Required for Production	63,000	47,000	46,500	50,250	54,250
D. + Closing Stock	(+) 9,400	(+) 9,300	(+) 10,050	(+) 10,850	
	72,400	56,300	56,550	61,100	
E. - Opening Stock	0	(-) 9,400	(-) 9,300	(-) 10,050	
F. Required For Purchase	72,400	46,900	47,250	51,050	

Price Per KG

Use the figure that is given in the question

- See part (i) from the question - it says

'Each product unit requires 5 kgs of material X which costs €2.00 per Kg'

4 months raw materials purchases budget (in units and €) for Murray Ltd					
	Jan	Feb	Mar	April	May
A. Units of Production	12,600	9,400	9,300	10,050	10,850
B. Materials Per Unit	(x) 5	(x) 5	(x) 5	(x) 5	(x) 5
C. Required for Production	63,000	47,000	46,500	50,250	54,250
D. + Closing Stock	(+) 9,400	(+) 9,300	(+) 10,050	(+) 10,850	
	72,400	56,300	56,550	61,100	
E. - Opening Stock	0	(-) 9,400	(-) 9,300	(-) 10,050	
G. Required For Purchase	72,400	46,900	47,250	51,050	
H. Price Per KG	€2	€2	€2	€2	

Cost of Raw Material

An adjustment is needed here

1. This is where we multiply the figure in I (Required for Purchase) by J (Price per KG)

4 months raw materials purchases budget (in units and €) for Murray Ltd					
	Jan	Feb	Mar	April	May
A. Units of Production	12,600	9,400	9,300	10,050	10,850
B. Materials Per Unit	(x) 5	(x) 5	(x) 5	(x) 5	(x) 5
C. Required for Production	63,000	47,000	46,500	50,250	54,250
D. + Closing Stock	(+) 9,400	(+) 9,300	(+) 10,050	(+) 10,850	
	72,400	56,300	56,550	61,100	
E. - Opening Stock	0	(-) 9,400	(-) 9,300	(-) 10,050	
I. Required For Purchase	72,400	46,900	47,250	51,050	
J. Price Per KG	€2	€2	€2	€2	
K. Cost of Raw Material	144,800	93,800	94,500	102,100	

NOTE - Remember to include the heading - 4 months raw material purchases budget (in units and €) for Murray Ltd

PART C

Part C is asking you to Prepare a cash budget for four months. The budget will look like the following

Cash budget for Murray Ltd for the four months January to April 2014.					
Receipts	January	February	March	April	Total
Cash Sales	84,000	96,000	120,000	108,000	408,000
Credit Sales 1		63,000	72,000	90,000	225,000
Credit Sales 2			63,000	72,000	135,000
1. Total Receipts	84,000	159,000	255,000	270,000	768,000
Payments					
Purchases		144,800	93,800	94,500	333,100
Wages	25,000	25,000	25,000	25,000	100,000
Variable Overheads	63,000	47,000	46,500	50,250	206,750
Fixed Overheads	29,250	29,250	29,250	29,250	117,000
Equipment	45,000				45,000
Loan interest	250	250	250	250	1,000
2. Total Payments	162,500	246,300	194,800	199,250	802,850
Net Cash	(78,500)	(87,300)	60,200	70,750	(34,850)
Opening Cash		(+) 48,500	(+) (135,800)	(75,600)	
Bank Loan	(+) 30,000				(+) 30,000
Closing Cash	48,500	(135,800)	(75,600)	(4,850)	(4,850)

NOTE - You don't have to complete the total column but the closing cash for April and the closing cash for the Total Column must be the same - this can be a way to check if the question has been completed correctly - TIMING MAY BE AN ISSUE HERE

Important totals are as follows. These will be needed for part D when you will have to prepare a budgeted profit and loss account.

Wages	Variable Overheads
Fixed Costs	Loan Interest

Remember to include - Interest and depreciation as well for part D

RECEIPTS

An adjustment is needed here

This is the income for the business over a four-month period. In the question under part (iv) It gives you cash customer and credit customers

Cash and Credit Receipts

1. Cash customer says that 40% of sale revenue will be for immediate cash Here you will have to
 - a. Take the revenue figure given in the question and multiply it by 40% to get the cash figure
2. Credit customer says 60% of sales revenue will be from credit customer These debtors will pay their bills 50% in the month after sale and the remainder in the second month after sale.
 - a. Using the credit figure that is let from 1 above get 50% of it

	January	February	March	April
Sales Revenue	210,000	240,000	300,000	270,000

Taken from the question

Workings**January**Cash Receipts

€210,000 * 40%

(-) €84,000 Cash January

€126,000

Credit Receipts

€126,000 * 50%

(-) €63,000 (Credit 1 - February)

€63,000 (Credit 2 - March)

FebruaryCash Receipts

€240,000 * 40%

(-) €96,000 Cash February

€144,000

Credit Receipts

€144,000 * 50%

(-) €72,000 (Credit 1 - March)

€72,000 (Credit 2 - April)

MarchCash Receipts

€300,000 * 40%

(-) €120,000 Cash March

€180,000

Credit Receipts

€180,000 * 50%

(-) €90,000 (Credit 1 - April)

€90,000 (Credit 2 - Debtor)

AprilCash Receipts

€270,000 * 40%

(-) €108,000 Cash April

€162,000

Credit Receipts

€162,000 * 50%

(-) €81,000 (Credit 1 - Debtor)

€81,000 (Credit 2 - Debtor)

Receipts	January	February	March	April	Total
Cash Sales	84,000	96,000	120,000	108,000	408,000
Credit Sales 1		63,000	72,000	90,000	225,000
Credit Sales 2			63,000	72,000	135,000

Debtors Figure

NOTE - The March figure Credit 2 of €90,000 and April credit 1 and credit 2 of €80,000 is not included in the cash budget as the budget is only for 4 months and would be the debtors figure if you were asked to complete a balance sheet

Total Receipts

An adjustment is needed here

- To calculate the Total Receipts, we add up the figures cash sale and credit sales for each month

Receipts	January	February	March	April	Total
Cash Sales	84,000	96,000	120,000	108,000	408,000
Credit Sales 1		63,000	72,000	90,000	225,000
Credit Sales 2			63,000	72,000	135,000
1. Total Receipts	84,000	159,000	255,000	270,000	768,000

PAYMENTS

We keep working down through the question. The next Adjustment (v), relates to purchases

'One month's credit is received from suppliers.'

Purchases

An adjustment is needed here

- The purchases figures have already been calculated as part of Part B.

	January	February	March	April
L. Cost of Raw Material	144,800	93,800	94,500	102,100

Taken from Part B

- See part (v) from the question - it says

'one month's credit is receive from suppliers'

- This means that July is not due until August, August is not due until Sept and so forth.

Receipts	July	August	September	October	Total
Cash Sales	216,660	220,440	224,200	226,100	887,300
Credit Sales	0	342,000	348,000	354,000	1,044,000
1. Total Receipts	216,660	562,400	572,220	580,100	1,931,300
Payments					
Purchases		144,800	93,800	94,500	333,100

Creditors Figure

NOTE - The April figure of €102,100 is not included in the cash budget as the budget is only for 4 months. But this €102,100 would be the creditors figure if you were asked to complete a balance sheet

EXPENSES

NOTE -

- Adjustment (vi) will give you the list of the rest of the expenses that will go in the payments section of the cash budget. These include
 - Wages
 - Variable Overheads
 - Fixed Overheads
 - Equipment (Just the figure from the question)
 - Loan Repayment
 - Loan Interest

2. Work down through these expenses, complete the working (if needed) and enter the figures into the Cash Budget

Remember not to include depreciation as this is not cash and only cash items are entered into the cash budget but the depreciation for will be included in part D - prepare a budgets trading and profit and loss account for Houghton Ltd

Wages

An adjustment is needed here

1. It tells us under expected costs that

'wages €25,000 per month , payable as incurred'

2. This means that €25,000 will be entered for each month

Receipts	January	February	March	April	Total
Cash Sales	84,000	96,000	120,000	108,000	408,000
Credit Sales 1		63,000	72,000	90,000	225,000
Credit Sales 2			63,000	72,000	135,000
3. Total Receipts	84,000	159,000	255,000	270,000	768,000
Payments					
Purchases		144,800	93,800	94,500	333,100
Wages	25,000	25,000	25,000	25,000	100,000

Variable Overheads

An adjustment is needed here

1. It tells us under expected costs that

'Variable overheads €5 per unit, payable as incurred'

2. Variable overhead are overheads that increase when more units are produced (For example Light and heat - the more you use the more you pay, raw materials the more you use the more you pay).
3. To calculate the variable overheads for this question we take the units that need to be produced for that month (see Part A) and multiple it by the variable overhead per unit (from the question)

Units that need to be produced

	January	February	March	April
Required for Production	12,600	9,400	9,300	10,050

Taken form part A

January

Units to be produced	12,600	Taken form Part A - Required for Production
Variable OH PU	<u>(x) €5</u>	Taken from the Question
	€63,000	

February

Units to be produced	9,400	Taken form Part A - Required for Production
Variable OH PU	<u>(x) €5</u>	Taken from the Question
	€47,000	

March

Units to be produced	9,300	Taken form Part A - Required for Production
Variable OH PU	<u>(x) €5</u>	Taken from the Question
	€46,500	

April

Units to be produced	10,050	Taken form Part A - Required for Production
Variable OH PU	<u>(x) €5</u>	Taken from the Question
	€50,250	

Receipts	January	February	March	April	Total
Cash Sales	84,000	96,000	120,000	108,000	408,000
Credit Sales 1		63,000	72,000	90,000	225,000
Credit Sales 2			63,000	72,000	135,000
4. Total Receipts	84,000	159,000	255,000	270,000	768,000
Payments					
Purchases		144,800	93,800	94,500	333,100
Wages	25,000	25,000	25,000	25,000	100,000
Variable Overheads	63,000	47,000	46,500	50,250	206,750

Fixed Overheads

An adjustment is needed here

1. It tells us under expected costs that

'Fixed overheads (including depreciation) €30,000 per month, payable as incurred.'

2. The fixed cost in the question includes depreciation. As we are doing a cash budget, we only include cash items.
3. This means we need to calculate the depreciation on the equipment and take it out of the fixed costs figure.
4. This new figure for fixed costs will go in the cash budget and the depreciation figure will go in the Profit and Loss Account (Part D)
5. As part of Capital Cost is says

'equipment will be purchased in January costing €45,000 which will have a useful life of 5 years'

To calculate the depreciation, we do the following

$$€45,000 / 5$$

$$€9,000 \text{ Depreciation per year}$$

We are doing the cash budget per month, so we need to find the monthly depreciation figure

$$€9,000 / 12$$

$$€750 \quad \text{Depreciation per year}$$

Fixed Costs	€30,000	Taken from the question
Depreciation	<u>€750</u>	See above working (Depreciation per month)
	€29,250	Fixed Cost Cash Budget

NOTE

As the €29,250 figure is the fixed cost figure it will be the same for each month in the cash budget

The depreciation for the budget trading and profit and loss account would be

$$€750 * 4 \text{ Months} = €3,000$$

Receipts	January	February	March	April	Total
Cash Sales	84,000	96,000	120,000	108,000	408,000
Credit Sales 1		63,000	72,000	90,000	225,000
Credit Sales 2			63,000	72,000	135,000
5. Total Receipts	84,000	159,000	255,000	270,000	768,000
Payments					
Purchases		144,800	93,800	94,500	333,100
Wages	25,000	25,000	25,000	25,000	100,000
Variable Overheads	63,000	47,000	46,500	50,250	206,750
Fixed Overheads	29,250	29,250	29,250	29,250	117,000

Equipment

Use the figure that is given in the question

1. It tells us under capital costs that

'Equipment will be purchased in 1 January costing €45,000 which will have a useful life of 5 years.'

2. This means that in July you put €45,000

Receipts	January	February	March	April	Total
Cash Sales	84,000	96,000	120,000	108,000	408,000
Credit Sales 1		63,000	72,000	90,000	225,000
Credit Sales 2			63,000	72,000	135,000
6. Total Receipts	84,000	159,000	255,000	270,000	768,000
Payments					
Purchases		144,800	93,800	94,500	333,100
Wages	25,000	25,000	25,000	25,000	100,000
Variable Overheads	63,000	47,000	46,500	50,250	206,750
Fixed Costs	29,250	29,250	29,250	29,250	117,000
Equipment	45,000				45,000

Loan Repayments

An adjustment is needed here

1. It tells us under capital costs that

'To finance this purchase, a loan of €30,000 will be secured at 10% per annum'

and

'Interest to be paid monthly, but capital loan repayments will not commence until July 2014.'

NOTE -

As the loan repayment doesn't start until July we will not include it in this budget as we are only doing the budget from January to April

Loan Interest

An adjustment is needed here

1. It tells us under capital costs that

'To finance this purchase, a loan of €30,000 will be secured at 10% per annum'

and

'Interest to be paid monthly, but capital loan repayments will not commence until July 2014.'

NOTE -

It is important to not that this question says

'Interest to be paid monthly'

And not

'based on the amount of the loan outstanding at that date'

This is very important because we don't have to reduce the loan each month by the repayment amount, we just multiply the loan amount (principal) by the rate.

All Months

NOTE - The interest will start in January as per the Question

Principal * Rate

Remember the budget is per month, so

€30,000 * 10% Taken form the Question

€3,000 / 12

€3,000

Yearly amount

€250

Monthly amoun

Receipts	January	February	March	April	Total
Cash Sales	84,000	96,000	120,000	108,000	408,000
Credit Sales 1		63,000	72,000	90,000	225,000
Credit Sales 2			63,000	72,000	135,000
1. Total Receipts	84,000	159,000	255,000	270,000	768,000
Payments					
Purchases		144,800	93,800	94,500	333,100
Wages	25,000	25,000	25,000	25,000	100,000
Variable Overheads	63,000	47,000	46,500	50,250	206,750
Fixed Costs	29,250	29,250	29,250	29,250	117,000
Equipment	45,000				45,000
Loan interest	250	250	250	250	1,000

Total Payments

An adjustment is needed here

- To calculate the Total Payment, we add up the figures in the payment section for each column for each month
- This will include - purchases + wages + variable OH + fixed OH + equipment + interest

Receipts	January	February	March	April	Total
Cash Sales	84,000	96,000	120,000	108,000	408,000
Credit Sales 1		63,000	72,000	90,000	225,000
Credit Sales 2			63,000	72,000	135,000
1. Total Receipts	84,000	159,000	255,000	270,000	768,000
Payments					
Purchases		144,800	93,800	94,500	333,100
Wages	25,000	25,000	25,000	25,000	100,000
Variable Overheads	63,000	47,000	46,500	50,250	206,750
Fixed Costs	29,250	29,250	29,250	29,250	117,000
Equipment	45,000				45,000
Loan interest	250	250	250	250	1,000
2. Total Payments	162,500	246,300	194,800	199,250	802,850

Net Cash

An adjustment is needed here

- To calculate the Net Cash, we take the Total Receipts (1) and take away the Total Payments (2)

Receipts	January	February	March	April	Total
Cash Sales	84,000	96,000	120,000	108,000	408,000
Credit Sales 1		63,000	72,000	90,000	225,000
Credit Sales 2			63,000	72,000	135,000
3. Total Receipts	84,000	159,000	255,000	270,000	768,000
Payments					
Purchases		144,800	93,800	94,500	333,100
Wages	25,000	25,000	25,000	25,000	100,000
Variable Overheads	63,000	47,000	46,500	50,250	206,750
Fixed Costs	29,250	29,250	29,250	29,250	117,000
Equipment	45,000				45,000
Loan interest	250	250	250	250	1,000
4. Total Payments	162,500	246,300	194,800	199,250	802,850
Net Cash	(78,500)	(87,300)	60,200	70,750	(34,850)

Opening Cash

An adjustment is needed here

1. Remember the closing cash for one month is the opening cash for the next month
For example January's Closing Cash will be February's Opening Cash, February's Closing Cash will be March's Opening Cash and so forth.

2. There may not be any opening cash for the first month, so we leave it blank or put in Zero (0). If there was any opening cash, it would tell you in the question

NOTE - This part of the question will have to be complete column by column (month by month), this is because you will have to calculate the closing cash for the month, so you have the opening cash for the next month

Receipts	January	February	March	April	Total
Cash Sales	84,000	96,000	120,000	108,000	408,000
Credit Sales 1		63,000	72,000	90,000	225,000
Credit Sales 2			63,000	72,000	135,000
5. Total Receipts	84,000	159,000	255,000	270,000	768,000
Payments					
Purchases		144,800	93,800	94,500	333,100
Wages	25,000	25,000	25,000	25,000	100,000
Variable Overheads	63,000	47,000	46,500	50,250	206,750
Fixed Costs	29,250	29,250	29,250	29,250	117,000
Equipment	45,000				45,000
Loan interest	250	250	250	250	1,000
6. Total Payments	162,500	246,300	194,800	199,250	802,850
Net Cash	(78,500)	(87,300)	60,200	70,750	(34,850)
Opening Cash		(+) 48,500	(+) (135,800)	(75,600)	
Bank Loan	(+) 30,000				(+) 30,000
Closing Cash	48,500	(135,800)	(75,600)	(4,850)	(4,850)

Bank Loan

Use the figure that is given in the question

1. It tells us under capital costs that

'To finance this purchase, a loan of €30,000 will be secured at 10% per annum.'

2. The loan figure will be taken from the question and will be the loan figure that was used to purchase the equipment (€30,000)

Cash budget for Murray Ltd for the four months January to April 2014.
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Receipts	January	February	March	April	Total
Cash Sales	84,000	96,000	120,000	108,000	408,000
Credit Sales 1		63,000	72,000	90,000	225,000
Credit Sales 2			63,000	72,000	135,000
7. Total Receipts	84,000	159,000	255,000	270,000	768,000
Payments					
Purchases		144,800	93,800	94,500	333,100
Wages	25,000	25,000	25,000	25,000	100,000
Variable Overheads	63,000	47,000	46,500	50,250	206,750
Fixed Costs	29,250	29,250	29,250	29,250	117,000
Equipment	45,000				45,000
Loan interest	250	250	250	250	1,000
8. Total Payments	162,500	246,300	194,800	199,250	802,850
Net Cash	(78,500)	(87,300)	60,200	70,750	(34,850)
Opening Cash		(+ 48,500)	(+ (135,800))	(75,600)	
Bank Loan	(+ 30,000)				(+ 30,000)

Closing Cash

An adjustment is needed here

1. The closing cash is calculated by adding Net Cash, opening cash and bank loan (if any) together

NOTE - Remember the closing cash for one month is the opening cash for the next month

Cash budget for Murray Ltd for the four months January to April 2014.					
Receipts	January	February	March	April	Total
Cash Sales	84,000	96,000	120,000	108,000	408,000
Credit Sales 1		63,000	72,000	90,000	225,000
Credit Sales 2			63,000	72,000	135,000
9. Total Receipts	84,000	159,000	255,000	270,000	768,000
Payments					
Purchases		144,800	93,800	94,500	333,100
Wages	25,000	25,000	25,000	25,000	100,000
Variable Overheads	63,000	47,000	46,500	50,250	206,750
Fixed Costs	29,250	29,250	29,250	29,250	117,000
Equipment	45,000				45,000
Loan interest	250	250	250	250	1,000
10. Total Payments	162,500	246,300	194,800	199,250	802,850
Net Cash	(78,500)	(87,300)	60,200	70,750	(34,850)
Opening Cash		(+) 48,500	(+) (135,800)	(75,600)	
Bank Loan	(+) 30,000				(+) 30,000
Closing Cash	48,500	(135,800)	(75,600)	(4,850)	(4,850)

NOTE - You don't have to complete the Total Colum but the closing cash for April and the closing cash for the Total Column must be the same - this can be a way to check if the question has been completed correctly - TIMING MAY BE AN ISSUE HERE

NOTE - Remember to include the heading - 4 months raw material purchases budget (in units and €) for Murray Ltd

PART D

Part D is asking you to prepare a budget trading, profit and loss for four months. This will have the same layout as Question one. The budget will look like the following

Budgeted Trading and Profit and Loss Account for the 4 months ended 31/10/2014			
Sales			1,020,000
<u>Less Cost of Sales</u>			
Opening stock		0	
Add Purchases		(+ 432,200	
		432,200	
Less Closing Stock			
Finished Goods	183,750		
Raw Material	(+ 21,700	(-) 205,450	
Cost of Goods Sold			(-) 229,750
Gross Profit			790,250
<u>Less Expenses</u>			
Wages		100,000	
Variable Overheads		(+ 206,750	
Fixed Overheads		(+ 117,000	
Depreciation		(+ 3,000	(-) 426,750
Operating Profit			363,500
Less Interest			(-) 1,000
Net Profit			362,500

Sales

A calculation is needed here

1. The figure for sales revenue is taken straight form the question for January, February, March and April and adding them together

July	€210,000	(as per the question)
August	€240,000	(as per the question)
September	€300,000	(as per the question)
October	<u>€270,000</u>	(as per the question)
	€1,020,000	

Sales			1,020,000
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Opening Stock

There is no opening stock given to use in this question so we can leave it blank or put in zero (0)

Sales			1,020,000
Less Cost of Sales			
Opening stock		0	

Purchases

Use the figures from part B

1. The Purchases figure is got by taking the total for cost of raw material for each month from part B and adding them together
2. You can have a total when completing part B as well

	January	February	March	April
L. Cost of Raw Material	144,800	93,800	94,500	102,100

Taken from part B

July	€144,800	(January Total from part B)
August	€93,800	(February Total from part B)
September	€94,500	(March Total from part B)
October	<u>€102,100</u>	(April Total from part B)
	€435,200	

Remember to add the opening stock figure and purchases figure together

Sales			1,020,000
Less Cost of Sales			
Opening stock		0	
Add Purchases		(+) 432,200	
		432,200	

Closing Stock

An adjustment is needed here

NOTE - in the question it tells us that closing stock should be valued at

1. €25 for finished goods (as per part d of the question). The closing stock figure for finished goods will be taken from Part A (see table below)
2. €5 per kg for unfinished goods (as per part (i)). The Closing stock for unfinished goods will be taken from Part B (see Table below)

Remember we are doing the Trading Profit and Loss account for 4 months so we will use the October column and not the November column

Production budget for Murray Ltd for the four months					
	Jan	Feb	Mar	April	May
Sales	7,000	8,000	10,000	9,000	10,500
+ Closing stock	(+) 5,600	(+) 7,000	(+) 6,300	(+) 7,350	(+) 7,700
	12,600	15,000	16,300	16,350	18,200
- Opening Stock	0	(+) 5,600	(+) 7,000	(+) 6,300	(+) 7,350
Required for Production	12,600	9,400	9,300	10,050	10,850

Taken from Part A

4 months raw materials purchases budget (in units and €) for Murray Ltd					
	Jan	Feb	Mar	April	May
A. Units of Production	12,600	9,400	9,300	10,050	10,850
B. Materials Per Unit	(x) 5	(x) 5	(x) 5	(x) 5	(x) 5
C. Required for Production	63,000	47,000	46,500	50,250	54,250
D. + Closing Stock	(+) 9,400	(+) 9,300	(+) 10,050	(+) 10,850	
	72,400	56,300	56,550	61,100	
E. - Opening Stock	0	(-) 9,400	(-) 9,300	(-) 10,050	
L. Required For Purchase	72,400	46,900	47,250	51,050	
M. Price Per KG	€2	€2	€2	€2	
N. Cost of Raw Material	144,800	93,800	94,500	102,100	

Taken form Part B

WorkingFinished Goods Closing stock $7,320 * €25 = 219,600$ Raw material Closing stock $10,850 * €2 = 29,568$

Sales			1,020,000
Less Cost of Sales			
Opening stock		0	
Add Purchases		(+) 432,200	
		432,200	
Less Closing Stock			
Finished Goods	183,750		
Raw Material	(+) 21,700	(-) 205,450	

Cost of Goods Sold

A calculation is needed here

1. To calculate the cost of sales - take the closing stock figure away from the purchases figure (Opening stock + purchases)

Sales			1,020,000
<u>Less Cost of Sales</u>			
Opening stock		0	
Add Purchases		(+) 432,200	
		432,200	
Less Closing Stock			
Finished Goods	183,750		
Raw Material	(+) 21,700	(-) 205,450	
Cost of Goods Sold			(-) 229,750

Gross Profit

A calculation is needed here

- Gross profit is calculated by taking the figure of cost of sales away from the sales figure $€1,020,000 - €229,750 = €790,250$

Sales			1,020,000
<u>Less Cost of Sales</u>			
Opening stock		0	
Add Purchases		(+) 432,200	
		432,200	
Less Closing Stock			
Finished Goods	183,750		
Raw Material	(+) 21,700	(-) 205,450	
Cost of Goods Sold			(-) 229,750
Gross Profit			790,250

Expenses

A calculation is needed here

For the Expenses we work down through the payment's items from the cash budget

- Purchases This item will go in the trading section of the profit and loss account

2. Wages add up all the figures for each month to get the total figure.
(€25,000 + €25,000 + €25,000 + €25,500 = €100,000)
3. Variable Overheads add up all the figures for each month to get the total
(€63,000 + €47,000 + €46,500 + €50,250 = €206,750)
4. Fixed Costs add up all the figures for each month to get the total figure.
(€29,250 + €29,250 + €29,250 + €29,250 = €117,000)
5. Depreciation Also include the depreciation for equipment
(€750 * 4 months = €3,000)

Remember to add up all the expense figure to get a total

Sales			1,020,000
<u>Less Cost of Sales</u>			
Opening stock		0	
Add Purchases		(+) 432,200	
		432,200	
Less Closing Stock			
Finished Goods	183,750		
Raw Material	(+) 21,700	(-) 205,450	
Cost of Goods Sold			(-) 229,750
Gross Profit			790,250
<u>Less Expenses</u>			
Wages		100,000	
Variable Overheads		(+) 206,750	
Fixed Overheads		(+) 117,000	
Depreciation		(+) 3,000	(-) 426,750

Operating Profit

A calculation is needed here

- Using the Gross Profit figure, we take away the total expense figure away from it to get the operating profit figure - €790,250 - €426,750 = €363,500

Sales			1,020,000
<u>Less Cost of Sales</u>			
Opening stock		0	
Add Purchases		(+ 432,200	
		432,200	
Less Closing Stock			
Finished Goods	183,750		
Raw Material	(+ 21,700	(-) 205,450	
Cost of Goods Sold			(-) 229,750
Gross Profit			790,250
<u>Less Expenses</u>			
Wages		100,000	
Variable Overheads		(+ 206,750	
Fixed Overheads		(+ 117,000	
Depreciation		(+ 3,000	(-) 426,750
Operating Profit			363,500

Less Interest

A calculation is needed here

- The interest figures are already calculated in Part C as part of the cash budget. Add up all the figures for each month to get the total.

Receipts	July	August	September	October	Total
Loan interest		250	250	250	250

Taken from Part C working - Interest

Sales			1,020,000
<u>Less Cost of Sales</u>			
Opening stock		0	
Add Purchases		(+) 432,200	
		432,200	
Less Closing Stock			
Finished Goods	183,750		
Raw Material	(+) 21,700	(-) 205,450	
Cost of Goods Sold			(-) 229,750
Gross Profit			790,250
<u>Less Expenses</u>			
Wages		100,000	
Variable Overheads		(+) 206,750	
Fixed Overheads		(+) 117,000	
Depreciation		(+) 3,000	(-) 426,750
Operating Profit			363,500
Less Interest			(-) 1,000

Net Profit

A calculation is needed here

- The Net profit figure is calculated by using the Operating profit figure and taking away the interest paid ($€363,500 - €1,000 = €362,500$)

NOTE - Remember to include the heading - Budgeted Trading and Profit and Loss Account for the 4 months ended 31/10/2014

Budgeted Trading and Profit and Loss Account for the 4 months ended 31/10/2014			
Sales			1,020,000
<u>Less Cost of Sales</u>			
Opening stock		0	
Add Purchases		(+ 432,200)	
		432,200	
Less Closing Stock			
Finished Goods	183,750		
Raw Material	(+ 21,700)	(-) 205,450	
Cost of Goods Sold			(-) 229,750
Gross Profit			790,250
<u>Less Expenses</u>			
Wages		100,000	
Variable Overheads		(+ 206,750)	
Fixed Overheads		(+ 117,000)	
Depreciation		(+ 3,000)	(-) 426,750
Operating Profit			363,500
Less Interest			(-) 1,000
Net Profit			362,500

PART E

This is the theory part of the question and includes the following

(i) What useful information is available to Houghton Ltd from the cash budget?

1. It can identify periods of when the company is in a deficit - In July and August, the company has a maximum cash deficit of €110,920.
2. It can identify when the company will have a surplus - This shortfall is eliminated in September and October with a cash surplus at the end of October of €345,078.
3. It can identify if the company will need to get a loan or arrange a bank overdraft - The company needs to arrange a bank overdraft of €110,920 or else take corrective action by leasing the equipment, or extending the period of credit received from one month to two months.
4. The company could also try and get customers to buy more goods for cash rather than credit.
5. This could be used to purchase new fixed assets increasing the productive capacity of the firm or purchase investments which increase investment income and profit.

(ii) Explain what is meant by a master budget.

Master Budget is a planning tool that gives an overview of a business's finances, outlining cash flow forecasts, financial statements, and the financial plan.

It is a financial planning document that includes all budgets, cash flow forecasts, budgeted financial statements, and financial plans of an organisation. It usually has different elements, including the budgets for sales, production, administration, direct materials, and overhead.

The master budget allows the company to forecast what will need to be done to meet their goals.

Example of a Master budget

Often, a company's other budgets will roll up into the master budget. For instance, a company may incorporate its sales budget, the cost of goods sold, selling and administrative expenses, cash budget, capital expenditures, inventory, total assets, to construct a master budget that gives a in-depth picture of its financials.