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# Production Budgets

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## Winston LTD

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## 2019

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## Step By Step Approach

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**PART A**

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

A. Sales in units	These figures are usually taken from the question - sales are expected to be.
B. Add Closing stock	<ol style="list-style-type: none"> <li>1. There will be a certain percentage of stock to be increased/decreased. This will usually be given at the start of the question</li> <li>2. It will be calculated by using stock of finished goods on the 01.01 and increasing/reducing it by the percentage given at the start of the question</li> </ol>
C.	Add the figure for A and B together
D. Less Opening Stock	<ol style="list-style-type: none"> <li>1. This figure will be given in the question</li> <li>2. It can be identified by the sentence - 'Stock of finished goods on the 01/01/ xx are expected to be</li> </ol>
E. Required for Production	<ol style="list-style-type: none"> <li>1. Take the figure for D away from the figure calculate for C</li> <li>2. This figure will be used later on in the questions</li> </ol>

**Sales**

Take these figures from the question

1. These figures are taken straight from the question

	Dark	Light
Sales are expected to be	12,600	7,500

*Taken from the question*

**Tip** - Make sure to use the finished goods figures

**Closing Stock**

An adjustment is needed here

1. If the question says the following about closing stock  
*'all stock are to be increased by 10% from their opening levies by the end of 2020 and are valued using FIFO method.'*

and

**Tip** - Make sure to use the finished goods figures

'Stock of finished goods on 01/01/2020 are expected to be'

Dark	650 units @ €180 each
Light	420 units @ €240 each

Taken form the question

- This means that at the end of the year the closing stock figure for each product will have increased by 10%.
- The following workings show you how to calculate the closing stock figure for each product

**Exam Tip** - Exam Tip - Make sure to look out for if the closing stock will increase or decrease

**Workings**

**Dark**

Opening Stock      650      as per question  
 Rate of Increase    10%      as per question  
 650 \* 10%            = 65

Opening Stock      650  
 Increased            65  
 Cl. Stock             715

**Light**

Opening Stock      420      as per question  
 Rate of Increase    10%      as per question  
 420 \* 10%            = 42

Opening Stock      420  
 Reduction            42  
 Cl. Stock             462

	Dark	Light
Sales are expected to be	12,600	7,500
Add Closing Stock	715	462
	13,315	7,962

NOTE - Remember to add these two figures together to get the total (12,600 + 715 = 13,315 and 7,500 + 462= 7,962)

**Opening Stock**

Take these figures from the question

- The question says the following about the opening stock figures for finished goods

'Stock of finished goods on 01/01/2020 are expected to be'

Dark	650 units @ €180 each
Light	420 units @ €240 each

Taken from the question

2. This means that the opening stock figure for Dark is 650 units and for Light it is 420 units

	Dark	Light
Sales are expected to be	12,600	7,500
Add Closing Stock	715	462
	13,315	7,962
Less Opening Stock	650	420

### Budget production in units

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 - Prepare a raw materials purchases budget (in units and €)

Production budget for Winston Ltd in units		
	Dark	Light
Sales are expected to be	12,600	7,500
Add Closing Stock	715	462
	13,315	7,962
Less Opening Stock	(650)	(420)
Budget Production in Units	12,665	7,542

NOTE - Remember to take these two figures away from each other to get the total (13,315 - 650 = 12,665 and 7,962 - 420 = 7,542)

NOTE - Remember to include the heading - Production budget for Winston Ltd

**Exam Tip** - You can do the workings on the statement or on a calculator - there is no need for the workings

**Exam Tip** - Make sure to use the figures for finished goods and not raw materials

## PART B

Part B is asking you to calculate the raw materials purchases budget. This is how much of a certain material is needed each to produce the two products. The units from part A will be used as part of working. The layout is similar to Part A and look like this

A. Required for Production	1. A working will be needed to find out what the total figure is required o the material for each product
B. Add Closing stock	<ol style="list-style-type: none"> <li>1. There will be a certain percentage of opening stock that will need to be decreased to get the closing stock figure. This will usually be given at the start of the question.</li> <li>2. Make sure to use the <u>stock of raw materials</u> figure that is given in the question.</li> <li>3. This stock of raw material figure will be reduce by the percentage to decrease closing stock by.</li> </ol>
C. Less Opening Stock	<ol style="list-style-type: none"> <li>1. This figure will be given in the question</li> <li>2. Make sure to use the <u>stock of raw materials</u> figure that is given in the question.</li> </ol> <p>Tip - This is the same figure that you used in b above to calculate the closing stock figure</p>
D. Forecasted Purchases of Raw Material in Kgs	1. This figure is usually calculate by using the opening stock figure and taking it away from the figure above it
E. Purchase price	<ol style="list-style-type: none"> <li>1. This figure will usually be given in the question</li> <li>2. Make sure to use the figure that say the expected prices for raw materials during <i>the year</i> are</li> </ol>
F. Forecasted Purchases of Raw Material in €	1. This figure is got by multiplying D by E

<b>Required for production</b>
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An adjustment is needed here

1. The figures for the budget production in units for both products are taken from part A

Production budget for Winston Ltd in units		
	Dark	Light
Budget Production in Units	12,665	7,542

*Taken from part A*

2. In the question it says the following about raw materials

'Both products use the same raw materials and skilled labour but in different quantities per unit as follows'

	Dark	Light
Material 1	5 kgs	7 kgs
Material 2	6 kgs	4 kgs
Skilled Labour	6 Hours	8 Hours

*Taken from the question*

3. Use the following information to complete the working (We are interested in the material figure)
4. The working to calculate these figures will look something like this

### Workings

#### Dark

#### Material 1

Production Units	12,665	as per Part A
Required in kgs	<u>* 5</u>	as per question
	63,325	

#### Material 2

Production Units	12,665	as per Part A
Required in kgs	<u>* 6</u>	as per question
	75,900	

LightMaterial 1

Production Units    7,542    as per Part A  
 Required in kgs      \* 6      as per question  
    45,252

Material 2

Production Units    7,542    as per Part A  
 Required in kgs      \* 4      as per question  
    30,168

	Material 1	Material 2
<b>A. Required for Production</b>		
Dark	63,325	75,900
Light	45,252	30,168
	108,577	106,158

NOTE - Remember to add these two figures together to get the total (63,325 + 45,252 = 108,577 and 75,900 + 30,168 = 106,158)

<b>Closing Stock</b>
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**An adjustment is needed here**

- In the question it says  
*"all stock are to be increased by 10% from their opening levels by the end of 2020"*
- Make sure to use the opening stock figure for raw materials that are given in the question.

*'Stock of raw material on 01/01/2020 are expected to be'*

Material 1	6,500 Kgs @ €2.80 per Kg
Material 2	5,500 Kgs @ €5.10 per Kg

*Taken from the question*

- The working to calculate these figures will look something like this

**Exam Tip** - Make sure to use the figures for raw materials and not finished goods

**Working**Material 1

Opening Stock	6,500	as per question	Opening Stock	6,500
Rate of increase	<u>10%</u>	as per question	increase	<u>650</u>
	650			7,150

Material 2

Opening Stock	5,500	as per question	Opening Stock	5,500
Rate of increase	<u>10%</u>	as per question	increase	<u>550</u>
	550			6,050

	Material 1	Material 2
<b>A. Required for Production</b>		
Dark	63,325	75,900
Light	45,252	30,168
	108,577	106,158
<b>B. Add closing stock</b>	7,150	6,050
	109,227	106,708

NOTE - Remember to add these two figures together to get the total (108,577 + 7,150 = 109,227 and 106,158 + 6,050 = 106,708)

**Opening stock**

Take these figures from the question

- The question says the following about the opening stock figures for raw materials

*'Stock of raw material on 01/01/2020 are expected to be'*

Material 1	6,500 Kgs @ €2.80 per Kg
Material 2	5,500 Kgs @ €5.10 per Kg

*Taken from the question*

- This means that the opening stock figure for raw material for material 1 is 6,500 kgs and for material 2 it is 5,500 kgs



	Material 1	Material 2
<b>A. Required for Production</b>		
Dark	63,325	75,900
Light	45,252	30,168
	108,577	106,158
<b>B. Add closing stock</b>	7,150	6,050
	115,727	112,208
<b>C. Less Opening Stock</b>	(6,500)	(5,500)

### Forecasted purchases of raw material in Kgs

Use the figures in your answer

- To calculate the forecasted purchase of raw material in kgs figure you add the opening stock figure and the previous figure together

	Material 1	Material 2
<b>A. Required for Production</b>		
Dark	63,325	75,900
Light	45,252	30,168
	108,577	106,158
<b>B. Add closing stock</b>	7,150	6,050
	115,727	112,208
<b>C. Less Opening Stock</b>	(6,500)	(5,500)
<b>D. Forecasted purchases of raw material in Kgs</b>	109,227	106,708

### Purchase Price

Take these figures from the question

- The question says the following about the purchase price for raw materials

*'The expected price for raw materials during 2020 are*

Material 1	€3.00 per Kg
Material 2	€6.00 per Kg

*Taken from the question*

- Use these figures for the purchase price - Material 1 €3.00 and Material 2 €6.00

	Material 1	Material 2
<b>A. Required for Production</b>		
Dark	63,325	75,900
Light	45,252	30,168
	108,577	106,158
<b>B. Add closing stock</b>	7,150	6,050
	115,727	112,208
<b>C. Less Opening Stock</b>	(6,500)	(5,500)
<b>D. Forecasted purchases of raw material in Kgs</b>	109,227	106,708
<b>E. Purchase Price</b>	€3.00	€6.00

NOTE - Remember to multiply these two figures to the forecasted of raw materials in € figure

### Forecasted Purchases of Raw Materials €

Use the figures in your answer

- To calculate the forecasted purchase of raw material in € figure you multiply the expected price figure and the previous figure

Raw material purchases budget (in units and €) for Winston Ltd		
	Material 1	Material 2
<b>A. Required for Production</b>		
Dark	63,325	75,900
Light	45,252	30,168
	108,577	106,158
<b>B. Add closing stock</b>	7,150	6,050
	115,727	112,208
<b>C. Less Opening Stock</b>	(6,500)	(5,500)
<b>D. Forecasted purchases of raw material in Kgs</b>	109,227	106,708
<b>E. Purchase Price</b>	€3.00	€6.00
<b>F. Forecasted purchase of raw material in €</b>	327,681	640,248

NOTE - Remember to include the heading - Raw material purchases budget (in units and €) for Winston Ltd

## PART C

Part C is asking you to Prepare a production cost / manufacturing budget. The layout for this is the same layout as a manufacturing account and will look like the following

Manufacturing budget for Winston Ltd for year ended 31.12.20		
<b>Direct Materials</b>		
Opening stock raw materials		x
Add Purchase of raw materials		x
		x
Less Closing stock raw materials		(x)
Cost of raw materials consumed		x
<b>Direct Labour</b>		
Cost of labour		x
<b>Variable Overheads</b>		
Variable Overhead		x
<b>Fixed Overheads</b>		
Fixed Overheads		x
Cost of Manufacture		x

## Opening stock raw materials

An adjustment is needed here

1. We need to calculate the total figure in euros for opening stock of raw materials
2. To do this we will need a working using the information for raw material - units and price per kgs
3. The question says the following about raw materials

' Stock of raw material on 01/01/2020 are expected to be'

Material 1	6,500 Kgs @ €2.80 per Kg
Material 2	5,500 Kgs @ €5.10 per Kg

Taken from the question

**Workings****Material 1**

Kgs	6,500	Taken from the question
Price per Kgs	(x) €2.80	Taken from the question
	€18,200	Opening stock raw materials

**Exam Tip** - Make sure to use the price for the start of the year - 01/01/20

**Material 2**

Kgs	5,500	Taken from the question
Price per Kgs	(x) €5.10	Taken from the question
	€28,050	Opening stock raw materials

<b>Direct Materials</b>		
<u>Opening stock raw materials</u>		
Material 1	18,200	
Material 2	28,050	46,250

NOTE - Remember to add these two figures together to get the total (18,200 + 28,050 = 46,250)

<b>Purchases raw materials</b>
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Use the figures from Part B

1. The figure for purchases raw material has already been calculated in Part B
2. Use the total figure for material 1 - 859,760 and material 2 - 1,646,470

<b>Direct Materials</b>		
<u>Opening stock raw materials</u>		
Material 1	18,200	
Material 2	28,050	46,250
<u>Add Purchase of raw materials</u>		
Material 1	350,307	
Material 2	640,248	990,555

NOTE - Remember to add these two figures together to get the total (350,307 + 640,248 = 990,555)

Closing stock raw materials
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An adjustment is needed here

1. We need to calculate the total figure in euros for closing stock of raw materials
2. To do this we use the figure for closing stock that has been calculated in part B - material 1 7,150 and material 2 6,050
3. The question says the following about raw materials

*'the expected prices of raw materials during 2020 are'*

Material 1	€3.00 per Kg
Material 2	€6.00 per Kg

*Taken from the question*

**Workings**

Material 1

Kgs	7,150	Taken from Part B
Price per Kgs	(x) €3.00	Taken from the question
	€21,450	Closing stock raw materials

Material 2

Kgs	6,050	Taken from the question
Price per Kgs	(x) €6.00	Taken from the question
	€36,300	Opening stock raw materials

**Exam Tip** - Make use to use the expected price for raw materials during 2020 are

Direct Materials		
<u>Opening stock raw materials</u>		
Material 1	18,200	
Material 2	28,050	46,250
<u>Add Purchase of raw materials</u>		
Material 1	350,307	
Material 2	640,248	990,555
<u>Less Closing stock raw materials</u>		
Material A	21,450	
Material B	36,300	(57,750)

NOTE - Remember to add these two figures together to get the total (21,450 + 36,300 = 57,750). Take the closing stock figure 57,750 away

<b>Cost of raw materials consumer</b>
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**An adjustment is needed here**

- To calculate the cost of raw materials consumer we use the following formula

Total figure for opening stock + total figure for purchases - total figure for closing stock

<b>Direct Materials</b>		
<u>Opening stock raw materials</u>		
Material 1	18,200	
Material 2	28,050	46,250
<u>Add Purchase of raw materials</u>		
Material 1	350,307	
Material 2	640,248	990,555
<u>Less Closing stock raw materials</u>		
Material A	21,450	
Material B	36,300	(57,750)
<b>Cost of raw materials consumed</b>		<b>979,055</b>

<b>Direct Labour</b>
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**An adjustment is needed here**

- We need to calculate the cost of the direct labour for making the 2 products (Use the units calculated in Part A)
- To do this we will need a working using the information for raw material - skilled labour
- The question says the following about raw materials

*'The skilled labour rate is expected to be €16.00 per hour'*

and

*"both products use the same raw materials and skilled labour but in different quantities per unit as follows'*

	<b>Dark</b>	<b>Light</b>
Material 1	5 kgs	7 kgs
Material 2	6 kgs	4 kgs
Skilled Labour	6 Hours	8 Hours

*Taken from the question*

**Workings**Dark

Budget production in units	12,665	Taken from Part A
Skilled hours needed	<u>(x) 6</u>	Taken from the question
	75,900	Hours needed
Skilled labour rate	<u>(x) €16.00</u>	Taken from the question
	1,215,840	

**Exam Tip** - Make use to use hours needed (skilled Labour) and the labour rate per hour

Light

Budget production in units	7,542	Taken from Part A
Skilled hours needed	<u>(x) 8</u>	Taken from the question
	60,336	Hours needed
Skilled labour rate	<u>(x) €16.00</u>	Taken from the question
	965,376	

<b>Direct Materials</b>		
<u>Opening stock raw materials</u>		
Material 1	18,200	
Material 2	28,050	46,250
<u>Add Purchase of raw materials</u>		
Material 1	350,307	
Material 2	640,248	990,555
<u>Less Closing stock raw materials</u>		
Material A	21,450	
Material B	36,300	(57,750)
Cost of raw materials consumed		979,055
<b>Direct Labour</b>		
<u>Cost of labour</u>		
Dark	1,215,840	
Light	965,376	2,181,216

Variable Overheads
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**An adjustment is needed here**

Remember - variable overhead means the more you produce a unit of a product the overheads to produce the product increase.

1. We need to calculate the total variable overheads for making the 2 products (Use the units calculated in Part A)
2. To do this we will still use the information for calculating labour cost but this time we will multiply by the variable rate instead of the skilled labour rate
3. The question says the following about variable overheads

*'production overhead costs are expected to be:*

Variable	€5.50	Per skilled labour hour
Fixed	€681,630	Per annum

*Taken from the question*

*and*

*"both products use the same raw materials and skilled labour but in different quantities per unit as follows'*

	Dark	Light
Material 1	5 kgs	7 kgs
Material 2	6 kgs	4 kgs
Skilled Labour	6 Hours	8 Hours

*Taken from the question*

**Workings****Dark**

Budget production in units	12,665	Taken from Part A
Skilled hours needed	<u>(x) 6</u>	Taken from the question
	75,990	Hours needed
Skilled labour rate	<u>(x) €5.50</u>	Taken from the question
	417,945	

**Exam Tip** - This is the same working as the direct labour working except, we use the variable rate per skilled labour hour

**Exam Tip** - Make use to use hours needed (skilled Labour) and the variable rate per skilled labour hour



Light

Budget production in units	7,542	Taken from Part A
Skilled hours needed	<u>(x) 8</u>	Taken from the question
	60,336	Hours needed
Skilled labour rate	<u>(x) €5.50</u>	Taken from the question
	311,848	

<b>Direct Materials</b>		
<u>Opening stock raw materials</u>		
Material 1	18,200	
Material 2	28,050	46,250
<u>Add Purchase of raw materials</u>		
Material 1	350,307	
Material 2	640,248	990,555
<u>Less Closing stock raw materials</u>		
Material A	21,450	
Material B	36,300	(57,750)
Cost of raw materials consumed		979,055
<b>Direct Labour</b>		
<u>Cost of labour</u>		
Dark	1,215,840	
Light	965,376	2,181,216
<b>Variable Overheads</b>		
Dark	417,945	
Light	331,848	749,793

<b>Fixed Overheads</b>
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Take these figures from the question

1. These figures are taken straight from the question
2. The question says the following about fixed overheads

*'production overhead costs are expected to be:*

Variable	€5.50	Per skilled labour hour
Fixed	€681,630	Per annum

Taken from the question

3. We use the figure of €681,630 as the fixed overhead figure

<b>Direct Materials</b>		
<u>Opening stock raw materials</u>		
Material 1	18,200	
Material 2	28,050	46,250
<u>Add Purchase of raw materials</u>		
Material 1	350,307	
Material 2	640,248	990,555
<u>Less Closing stock raw materials</u>		
Material A	21,450	
Material B	36,300	(57,750)
Cost of raw materials consumed		979,055
<b>Direct Labour</b>		
<u>Cost of labour</u>		
Dark	1,215,840	
Light	965,376	2,181,216
<b>Variable Overheads</b>		
Dark	417,945	
Light	331,848	749,793
<b>Direct Materials</b>		
Fixed Overheads		681,630

### Cost of manufacture

An adjustment is needed here

- To calculate the cost of manufacture we add up the following totals - cost of raw material consumed + cost of labour + variable overheads + fixed overheads

$$979,055 + 2,181,216 + 749,793 + 681,630 = 4,591,694$$

Production cost/manufacturing budget for Winston LTD for year ended 31/12/2020		
<b>Direct Materials</b>		
<u>Opening stock raw materials</u>		
Material 1	18,200	
Material 2	28,050	46,250
<u>Add Purchase of raw materials</u>		
Material 1	350,307	
Material 2	640,248	990,555
<u>Less Closing stock raw materials</u>		
Material A	21,450	
Material B	36,300	(57,750)
Cost of raw materials consumed		979,055
<b>Direct Labour</b>		
<u>Cost of labour</u>		
Dark	1,215,840	
Light	965,376	2,181,216
<b>Variable Overheads</b>		
Dark	417,945	
Light	331,848	749,793
<b>Direct Materials</b>		
Fixed Overheads		681,630
Cost of Manufacture		4,591,694

NOTE - Remember to include the heading - Production cost/manufacturing budget for Winston LTD for year ended 31/12/2020

**PART D**

Part D is asking you to prepare a budget trading account but first you must calculate the closing stock value per unit for each product (Golden and Portland). You will use the same headings as part C but we will be working out the figure per unit and NOT the total figure.

**Cost Per Unit**

The budget will look like the following

**Tip** - Use the headings from part C and remember it is per unit

Unit cost per unit closing stock			
	Product 1		Product 2
<b>Direct Materials</b>			
Material 1	x		x
Material 2	x		x
<b>Direct Labour</b>			
Cost of labour	x		x
<b>Variable Overheads</b>			
Variable Overhead	x		x
<b>Fixed Overheads</b>			
Fixed Overheads	x		x
Cost per unit	x		x

**Direct Material**

**A calculation is needed here**

1. To find out the figure per unit for direct materials we need to use how much is needed in kgs for material 1 and material 2 and multiply it by the cost of this material per Kg
2. The information that we need from the question will be as follows

*'both products use the same raw materials and skilled labour but in different quantities per unit as follows'*

	Dark	Light
Material 1	5 kgs	7 kgs

Material 2	6 kgs	4 kgs
Skilled Labour	6 Hours	8 Hours

*Taken from the question*

*And*

*'The expected price for raw materials during 2020 are'*

Material 1	€3.00 per kg
Material 2	€6.00 per kg

*Taken from the question*

### Workings

#### Dark

##### Material 1

Kgs per unit	5	Taken from question
Price per kg	<u>(x) €3.00</u>	Taken from question
	€15	

##### Material 2

Kgs per unit	6	Taken from question
Price per kg	<u>(x) €6.00</u>	Taken from question
	€36	

#### Light

##### Material 1

Kgs per unit	7	Taken from question
Price per kg	<u>(x) €3.00</u>	Taken from question
	€21	

##### Material 2

Kgs per unit	4	Taken from question
Price per kg	<u>(x) €6.00</u>	Taken from question
	€24	

	Dark		Light
<b>Direct Materials</b>			
Material 1	15		21
Material 2	36		24

<b>Direct Labour</b>
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A calculation is needed here

- To find out the figure per unit for direct labour we need to multiply the skilled hours needed by the skills hours rate
- The information that we need from the question will be as follows

*'both products use the same raw materials and skilled labour but in different quantities per unit as follows'*

	Dark	Light
Material 1	5 kgs	7 kgs
Material 2	6 kgs	4 kgs
Skilled Labour	6 Hours	8 Hours

*Taken from the question*

*And*

*'The skilled labour rate is expected to be €16.000 per hour'*

**Workings**

Dark

Skilled labour required	6	Taken from question
Skilled labour rate	<u>(x) €16.00</u>	Taken from question
	€96	

**Tip** - Remember to use the skilled labour hours for both products

Light

Skilled labour required	8	Taken from question
Skilled labour rate	<u>(x) €16.00</u>	Taken from question
	€128	

	Dark		Light
<b>Direct Materials</b>			
Material 1	15		21
Material 2	36		24
<b>Direct Labour</b>			
Cost of labour	96		128

**Variable Overheads**

A calculation is needed here

- To find out the figure per unit for variable overhead we need to multiply the skilled hours needed by the variable overhead rate per product
- The information that we need from the question will be as follows

*'both products use the same raw materials and skilled labour but in different quantities per unit as follows'*

	Dark	Light
Material 1	5 kgs	7 kgs
Material 2	6 kgs	4 kgs
Skilled Labour	6 Hours	8 Hours

*Taken from the question*

And

*'Production overhead costs are expected to be:'*

Variable	€5.50	Per skilled labour hour
Fixed	€681,630	Per annum

*Taken from the question*

**Workings**

**Dark**

Skilled labour required	6	Taken from question
Variable rate per skilled labour hour	(x) €5.50	Taken from question
	<b>€33</b>	

**Tip** - Remember to use the skilled labour hours for both products

Light

Skilled labour required 8 Taken from question  
 Variable rate per skilled labour hour (x) €5.50 Taken from question  
 €44

	Dark		Light
<b>Direct Materials</b>			
Material 1	15		21
Material 2	36		24
<b>Direct Labour</b>			
Cost of labour	96		128
<b>Variable Overheads</b>			
Variable Overhead	33		44

**Fixed Overheads**

**A calculation is needed here**

- To find out the figure per unit for fixed overhead we need divide the figure for fixed overheads by the total hours needed to product a unit of Golden and Portland.
- The information that we need from the question will be as follows

*Production overhead costs are expected to be:*

Variable	€5.50	Per skilled labour hour
Fixed	€681,630	Per annum

*Taken from the question*

And

*'both products use the same raw materials and skilled labour but in different quantities per unit as follows'*

3.	Dark	Light
Material 1	5 kgs	7 kgs
Material 2	6 kgs	4 kgs
Skilled Labour	6 Hours	8 Hours

*Taken from the question*

- Remember the budget production in units will be taken from part A - Dark 12,665 units and Portland 7,542 units



Note - The formula needed is

Fixed overheads

Total Hours

Tip - Total hours = budget production units \* skilled labour

**Working**

Formula

Fixed overheads

Total Hours

Total Hours per unit

Dark

Units required      12,665 Taken from Part A  
 Skilled labour      (\*) 6 Taken from question  
 Total Hours needed    75,990

Tip - Remember to use the skilled labour hours for both products

Light

Units required      7,542 Taken from Part A  
 Skilled labour      (\*) 8 Taken from question  
 Total Hours needed    60,336

Total hours required for Golden and Portland

$$75,990 + 60,336 = 136,326$$

Formula

Fixed overheads

Total Hours

=

681,630

136,326

Fixed Overhead per unit

€5.00

Dark

Skilled Hours            6            Taken from question  
 Fixed Overhead per unit    (\*) €5.00    Taken from above  
 Fixed overhead per unit    30

Tip - Remember to use the skilled labour hours for both products

Light

Skilled Hours	8	Taken from question
Fixed Overhead per unit	<u>(*) €5.00</u>	Taken from above
Fixed overhead per unit	40	

	Dark		Light
<b>Direct Materials</b>			
Material 1	15		21
Material 2	36		24
<b>Direct Labour</b>			
Cost of labour	96		128
<b>Variable Overheads</b>			
Variable Overhead	33		44
<b>Fixed Overheads</b>			
Fixed Overheads	30		40

<b>Cost per unit</b>
----------------------

Take the figures from the question

- To calculate the cost per unit figure for Golden and Portland we add the following total figures - Direct materials + direct labour + variable overheads + fixed overheads

Unit cost per unit closing stock			
	Dark		Light
<b>Direct Materials</b>			
Material 1	15		21
Material 2	36		24
<b>Direct Labour</b>			
Cost of labour	96		128
<b>Variable Overheads</b>			
Variable Overhead	33		44
<b>Fixed Overheads</b>			
Fixed Overheads	30		40
<b>Cost per unit</b>	210		257

<b>Budget Trading Account</b>
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The second part of Part D is to prepare the budget trading account is the same layout as Question 1 and will look something like this. Remember to use the closing stock figure per unit from the above working

<b>Budget trading account for Winston LTD for year ended 31/12/2020</b>		
Sales		x
<b><u>Less Cost of Sales</u></b>		
Opening stock	x	
Add Cost of manufacturing	x	
	x	
Less Closing Stock	x	(x)
<b>Gross Profit</b>		x

<b>Sales</b>
--------------

A calculation is needed here

1. To calculate the sales revenue figure for the trading account we need to use the expected units to be sold and multiply it by the price to be charged for each product
2. This information will usually be given at the start of the question
3. The information that we need from the question will be as follows

*'It expects to sell two products - Dark at €250 and Light at €300'*

*And*

	<b>Dark</b>	<b>Light</b>
Sales are expected to be:	12,600 units	7,500 units

**Working**

Dark

Expected Sales	12,600	taken from question
Selling Price	<u>€250</u>	taken from question
	€3,150,000	Sale revenue for Golden

Light

Expected Sales	7,500	taken from question
Selling Price	<u>€300</u>	taken from question
	€2,250,000	Sale revenue for Golden

Total Sales Revenue

Dark	€3,150,000	see working above
Light	<u>€2,250,000</u>	see working above
Total	€5,400,000	Total sale revenue figure

Sales			5,400,000
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<b>Opening Stock</b>
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**A calculation is needed here**

- To calculate the total opening stock figure for the trading account we needed to use the opening stock figure in the question and multiply it by the value of the opening stock
- The information that we need from the question will be as follows

*'stock of finished good on 01/01/2020 are expected to be:'*

Dark	650 units at €180
Light	420 units at €240

**Working**Dark

Expected opening stock	650	taken from question
Value of opening stock	<u>(*) €180</u>	taken from question
	€117,000	Opening stock value Golden

Light

Expected opening stock	420	taken from question
Value of opening stock	<u>(*) €240</u>	taken from question
	€100,800	Opening stock value Golden

**Tip** - Remember to use the figure for finished goods and not raw materials

Total opening stock figure

Dark	€117,000	see working above
Light	<u>€100,800</u>	see working above
Total	€217,800	Total opening stock figure

Sales			5,400,000
<b><u>Less Cost of Sales</u></b>			
Opening stock		217,800	

<b>Purchases (Cost of manufacture)</b>
--

**Take these figures from part C**

- The figure for purchases (cost of manufacture) is already calculate as part of Part C - €8,055,160

Sales			5,400,000
<b><u>Less Cost of Sales</u></b>			
Opening stock		217,800	
Add Cost of Manufacture		(+) 4,591,694	
		4,809,494	

Note - Remember to add the opening stock figure and the cost of manufacture figure together  
 $€217,800 + €4,591,694 = €4,809,494$

<b>Closing Stock</b>
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**A calculation is needed here**

- To calculate the closing stock figure we use the closing stock figures from Part A (Dark - 715 and Light - 462)
- We then multiply these figures by the cost per unit figure for both products. These were calculate at the start of this part (Part D)

**Working**Dark

Closing stock	715	taken from Part A
Cost per unit	<u>(*) €210</u>	Calculate at the start of this part (Part D)
	€150,150	Closing stock value Golden

Light

Closing stock	462	taken from Part A
Cost per unit	<u>(*) €257</u>	Calculate at the start of this part (Part D)
	€118,734	Closing stock value Golden

Total closing stock figure

Dark	€150,150	see working above
Light	<u>€118,734</u>	see working above
Total	€268,884	Total opening stock figure

Sales			5,400,000
<b><u>Less Cost of Sales</u></b>			
Opening stock		217,800	
Add Cost of Manufacture		(+) 4,591,694	
		4,809,494	
Less Closing Stock		(268,884)	4,540,610

NOTE - Remember to take the closing stock figure away from the previous figure (€4,809,494 - €268,884)

<b>Gross Profit</b>
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Take the figures from the question

- To calculate the Gross Profit figure for Dark and Light take these two figure away from each other 5,400,000 - 4,540,610

<b>Budget trading account for Winston Ltd for year ended 31.12.2020</b>			
Sales			5,400,000
<b><u>Less Cost of Sales</u></b>			
Opening stock		217,800	
Add Cost of Manufacture		(+) 4,591,694	
		4,809,494	
Less Closing Stock		(268,884)	4,540,610
<b>Gross Profit</b>			<b>859,390</b>

NOTE - Remember to include the heading - Budgeted Trading account Winston Ltd for year ended 31.12.20

**PART E**

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

**Explain 3 reasons for product costing**

1. It establishes the selling price for the tendering process
2. Controls cost by comparing budget costs with actual costs
3. Helps with planning and decision making
4. To find the value of closing stock to be used when calculating profit