

## QUESTION 1

50 marks; 90 minutes

Thabo's Brewing Company ('TBC') is a craft-brewery that is located on a farm just outside Paarl. Thabo Sefolosha is the sole proprietor and founded TBC in 2016. Thabo's grandfather brewed his own beer for many years and found a special Pilsner recipe, which balances bitterness and flavour perfectly. Consequently, Thabo decided to establish TBC and is currently manufacturing this Pilsner beer only. Thabo plans to expand his range of beer in the future.

TBC applies the absorption costing approach to compile management statements and also for inventory valuation purposes. Inventory valuation is further done by following a standard costing system. Consequently finished goods, work-in-progress and direct raw materials are valued at standard cost. Manufacturing overhead costs are allocated to products on the basis of machine hours.

TBC's accountant, Mhlolo, is currently busy reconciling the actual profit for the 2017 financial year ('FY2017'), which ended on 28 February, with the budgeted profit.

### The TBC Pilsner special recipe

The Pilsner is made from four basic ingredients, namely barley, water, hops and yeast. During the brewing process, sugar is extracted from the barley and with yeast converted to alcohol to make the beer. These processes include the malting of the barley, brewing of the malted barley to wort, cooking of the wort ('cooking process'), fermenting and bottling.

The secret of TBC's Pilsner is adding the correct quantity of hops to the cooking process at the correct time in order to accomplish the correct balance between bitterness and flavour of the beer. Hops is an ingredient that adds bitterness and flavour to the beer and also serves as a natural preservative. The TBC Pilsner is well-known as a beer with delicious flavours that leaves a somewhat bitter taste. The beer is also very light in colour. It is important to TBC to add enough hops during the beer-making process, since too little will decrease the bitterness level of the beer. If, on the other hand, too little barley is used, the beer is too light in colour and the taste of the beer is affected.

In order to manufacture a standard 19 litres of beer, TBC currently uses the standard ratio of 4,2kg barley to 0,15kg hops. The quantity of yeast is deemed negligibly small. The Pilsner beer is packaged and sold to clients in packs of 4 beers each ('a four-pack'). Each beer contains a standard 440 millilitres of beer.

Standards used by TBC to value inventory has been unchanged since FY2016 (2016-financial year) and are as follows:

Standard prices* are as follows:	Rand per quantity
Barley	R32 / kg
Hops	R95 / kg
Yeast	R20 / kg
Bottles	R2,50 / bottle
Direct labour	R25 / direct labour hour
Total manufacturing overhead costs (fixed and variable)	R95 / machine hour

\* The cost of water used in the manufacturing of beer is included in overheads and is negligibly small.

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## Budgeted and actual management statements for FY2017

The budgeted and actual gross profit for FY2017 has already been prepared by Mhlolo:

	Note	FY2017 Budget R	FY2017 Actual R
Sales	1	850 000.00	971 040.00
Less: Cost of sales		(501 196.84)	(603 281.89)
Opening inventory (Finished goods and work-in-progress)	2	0.00	0.00
Barley	3	124 496.84	163 800.00
Hops	3	13 200.00	11 400.00
Yeast	3	1 000.00	1 020.00
Bottles	3	100 000.00	158 467.50
Direct labour	4	25 000.00	32 450.00
Variable manufacturing overhead costs	5	112 500.00	152 640.00
Fixed manufacturing overhead costs allocated	5	125 000.00	159 000.00
Less: Closing inventory (Finished goods and work-in-progress)	2	0.00	(75 495.61)
<b>Gross profit (before over-recovery)</b>		<b>348 803.16</b>	<b>367 758.11</b>
Over-recovery of fixed manufacturing overheads		0.00	19 000.00
<b>Gross profit (after over-recovery)</b>		<b>348 803.16</b>	<b>386 758.11</b>

### Notes

1 TBC initially budgeted to sell a conservative 10 000 four-packs of beer, but due to the popularity of the Pilsner beer, they actually sold 12 138 four-packs.

2 There were no inventory on hand on 1 March 2016, but on 28 February 2017 the counted and theoretical inventory levels of finished goods and work-in-progress were as follows:

	Finished goods	Work-in-progress*
Inventory on hand on 28 February 2017	1 030 four packs	500 four-packs

\* On 28 February 2017 there were 500 four-packs that were almost complete, but not yet labelled by the labelling machine. Consequently these 500 four-packs were 100% complete for the purposes of all raw materials and labour, but only 90% complete with regards to fixed and variable manufacturing overhead costs.

3 The actual inventory levels, purchase and issue quantities of direct raw materials were as follows for FY2017:

	Barley	Hops	Yeast	Bottles
Opening inventory (1 March)	0kg	0kg	0kg	0 bottles
Purchases	6 000kg	150kg	51kg	57 000 bottles
Issued to production	(5 400kg)	(120kg)	(51kg)	(56 547 bottles)
Closing inventory (28 February)	600kg	30kg	0kg	453 bottles

4 Actual timesheets show a total of 1 180 direct labour hours for FY2017 compared to a budgeted 1 000 direct labour hours.

5 Actual machine hours amounted to 3 180 hours.

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## Email correspondence between Thabo and Mhlolo

The annual general meeting of TBC takes place on 20 March 2017. On this meeting Mhlolo will be expected to present the actual management statements as well as the reconciliation between the budgeted and actual gross profits. Mhlolo will especially need to comment on large adverse variations.

Refer to the following emails between Mhlolo and Thabo:

**From:** Thabo, Sefolosha, Mnr <thabo@tbc.co.za>  
**Sent:** 14 March 2017  
**To:** Mhlolo, Wami, Mnr <mhlolo@tbc.co.za>  
**Subject:** RE: Variances for FY2017

Dear Mhlolo,

I went through your proposition in the email below and I have the following concerns:

- Is it allowed to disposition (write back) variances whenever one feels like it and is it generally permitted to only disposition these adverse variances?
- If abovementioned is allowed, can all variances be dispositioned?

Please let me know your opinion and suggestions regarding the abovementioned.

Regards,  
Thabo

**From:** Mhlolo, Wami, Mnr <mhlolo@tbc.co.za>  
**Sent:** 13 March 2017  
**To:** Thabo, Sefolosha, Mnr <thabo@tbc.co.za>  
**Subject:** Variances for FY2017

Dear Thabo

I have calculated the following variances for the 2017 financial year:

- Selling price variance (R60 690 adverse)
- Bottles price variance (R17 100 adverse)
- Fixed manufacturing overhead cost spending variance (R15 000 adverse)

Abovementioned variances are all large adverse variances which considerably decrease the profits for the year. I heard from a friend that you can easily disposition these variances. If I disposition these variances, our profits for 2017 can increase with almost R93 000, which would look great at the annual general meeting.

Please let me know if you think I should disposition these variances.

Regards,  
Mhlolo

THE REQUIRED PART OF QUESTION 1 FOLLOWS ON NEXT PAGE

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QUESTION 1 – REQUIRED		Marks	
		Sub total	Total
(a)	(i) Calculate the raw material mix and yield variances of barley and hops for the 2017-financial year.	9	
	(ii) Discuss and interpret the mix and yield variances of hops and barley for the 2017 financial year for management purposes.	7	
	Communication skills – Logical argument	1	17
(b)	Prepare the following ledger accounts as it will appear in the general ledger of Thabo's Brewing Company for the 2017-financial year:		
	- Direct labour control account - Variable manufacturing overheads control account - Fixed manufacturing overheads control account	9	9
(c)	Write a short report to Thabo in which you;		
	(i) address his concerns, as contained in the email to Mhlolo, the accountant; and	7	
	(ii) provide the necessary general journal entries to disposition the variances as calculated by Mhlolo at the end of the 2017-financial year.	15	
	Please note: You can assume that the variances, as calculated by Mhlolo, are correct.		
	Communication skills – Layout and structure, clarity of expression	2	24
<b>Total</b>			<b>50</b>

QUESTION 2 FOLLOWS ON NEXT PAGE

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