

Source A for Question 1

W Limited makes Product X and operates a standard costing system.

The budgeted selling price was \$80 per unit, and the sales volume for March was 8000 units.

The standard cost per unit was as follows:

Direct materials	3 kilos at \$5 per kilo
Direct labour	4 hours at \$12 per hour
Fixed overhead	\$2.50 per labour hour

Actual results for March:

Units produced and sold	10 000	Sales revenue	\$ 795 000
Direct materials used	31 500 kilos	Direct materials cost	149 625
Direct labour hours	40 500 hours	Labour cost	510 300
		Fixed overhead	81 000



1 Read Source A in the insert.

(a) Prepare the flexible budget statement for March showing the budgeted profit.

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..... [3]

(b) Calculate the following variances:

(i) material price

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..... [2]

(ii) material usage

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(iii) labour rate

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..... [2]

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Question	Answer	Marks																		
1(a)	<p>Prepare the flexible budget statement for March showing the budgeted profit.</p> <table style="margin-left: 40px;"> <tr><td></td><td style="text-align: center;">\$</td><td></td></tr> <tr><td>Sales revenue</td><td style="text-align: right;">800 000</td><td style="text-align: right;">}</td></tr> <tr><td>Direct materials</td><td style="text-align: right;">150 000</td><td style="text-align: right;">} (1)</td></tr> <tr><td>Direct labour</td><td style="text-align: right;">480 000</td><td style="text-align: right;">}</td></tr> <tr><td>Fixed overhead</td><td style="text-align: right;">100 000</td><td style="text-align: right;">} (1)</td></tr> <tr><td>Budgeted profit</td><td style="text-align: right;"><u>70 000</u></td><td style="text-align: right;">(1) OF</td></tr> </table>		\$		Sales revenue	800 000	}	Direct materials	150 000	} (1)	Direct labour	480 000	}	Fixed overhead	100 000	} (1)	Budgeted profit	<u>70 000</u>	(1) OF	3
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1(b)(i)	<p>Calculate the following variances:</p> <p>Material price variance</p> <p>$\\$5 \times 31\,500 - \\$149\,625 = \\$7\,875$ (1) F (1)</p>	2																		
1(b)(ii)	<p>Calculate the following variances:</p> <p>Material usage variance</p> <p>$(10\,000 \times 3 \text{ kilos} - 31\,500 \text{ kilos}) \times \\$5 = \\$7\,500$ (1) A (1)</p>	2																		
1(b)(iii)	<p>Calculate the following variances:</p> <p>Labour rate variance</p> <p>$\\$12 \times 40\,500 - \\$510\,300 = \\$24\,300$ (1) A (1)</p>	2																		
1(b)(iv)	<p>Calculate the following variances:</p> <p>Labour efficiency variance</p> <p>$(10\,000 \times 4 \text{ hours} - 40\,500 \text{ hours}) \times \\$12 = \\$6\,000$ (1) A (1)</p>	2																		

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1(c)	<p>Explain the occurrence of the fixed overhead volume variance.</p> <p>If actual production volume (10 000 units) is greater than the budgeted production volume (8 000 units), then the overhead is over-absorbed. (1). Fixed overhead volume variance results from the difference between the budgeted fixed overhead and the standard fixed overhead absorbed to production costs. (1). It measures the utilisation of fixed capacity cost, and the favourable variance suggest that fixed cost resources are used efficiently. (1)</p> <p>Max 2</p> <p>Accept other valid responses.</p>	2																																																
1(d)	<p>Prepare a statement reconciling the flexible budget profit with the actual profit.</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%; text-align: center;">Favourable</th> <th style="width: 15%; text-align: center;">Adverse</th> <th style="width: 30%;"></th> </tr> <tr> <th></th> <th style="text-align: center;">\$</th> <th style="text-align: center;">\$</th> <th style="text-align: center;">\$</th> </tr> </thead> <tbody> <tr> <td>Flexible budget profit</td> <td></td> <td></td> <td style="text-align: right;">70 000</td> </tr> <tr> <td>Selling price variance \$795 000 – (10 000 × \$80)</td> <td></td> <td style="text-align: right;">5 000</td> <td style="text-align: right;">(2) *</td> </tr> <tr> <td>Material price variance</td> <td style="text-align: right;">7 875</td> <td></td> <td style="text-align: right;">}</td> </tr> <tr> <td>Material usage variance</td> <td></td> <td style="text-align: right;">7 500</td> <td style="text-align: right;">} (1)OF</td> </tr> <tr> <td>Labour rate variance</td> <td></td> <td style="text-align: right;">24 300</td> <td style="text-align: right;">}</td> </tr> <tr> <td>Labour efficiency variance</td> <td></td> <td style="text-align: right;">6 000</td> <td style="text-align: right;">} (1)OF</td> </tr> <tr> <td>Fixed overhead expenditure variance</td> <td></td> <td style="text-align: right;">1 000</td> <td></td> </tr> <tr> <td>Fixed overhead volume variance</td> <td style="text-align: right; border-top: 1px solid black;">20 000</td> <td></td> <td></td> </tr> <tr> <td></td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 3px double black;">27 875</td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 3px double black;">43 800</td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 3px double black;">(15 925)</td> </tr> <tr> <td>Actual profit</td> <td></td> <td></td> <td style="text-align: right; border-bottom: 3px double black;">54 075 (1)</td> </tr> </tbody> </table> <p>*1 mark for figure and 1 mark for direction</p>		Favourable	Adverse			\$	\$	\$	Flexible budget profit			70 000	Selling price variance \$795 000 – (10 000 × \$80)		5 000	(2) *	Material price variance	7 875		}	Material usage variance		7 500	} (1)OF	Labour rate variance		24 300	}	Labour efficiency variance		6 000	} (1)OF	Fixed overhead expenditure variance		1 000		Fixed overhead volume variance	20 000				27 875	43 800	(15 925)	Actual profit			54 075 (1)	5
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1(e)	<p>Advise the directors whether or not W Limited should stop using the standard costing system. Justify your answer.</p> <p>Continuing (Max 3) Standard cost is used as a benchmark against which to evaluate the actual costs. (1) Variances are investigated (1) and corrective action will be taken for improving operations. (1) It provides useful information for planning and decision making, e.g. quoting the selling price. (1) Managers are more cost conscious to seek improved methods to finish the task. (1)</p> <p>Stopping (Max 3) Standards may be artificial if they are not reviewed and updated regularly. (1) If the standards are not realistic, staff will be demotivated. (1) It is costly / time consuming to set up standards in the first place. (1) Managers may be blamed for those uncontrollable factors. (1)</p> <p>Decision supported with a comment (1)</p> <p>Accept other valid responses.</p>	7