

## Suggested solution

### Section A

#### 1 B

The principle of controllability is that managers should only be evaluated on elements which they can control or significantly influence. Holding managers accountable for uncontrollable factors can be seen as unfair and can reduce motivation. Therefore, the situation described in statement 2 is consistent with the principle of controllability.

The other two situations described are inconsistent with the principle of controllability.

In a revenue centre the manager only has control over elements relating to selling prices and sales volumes, hence should not be held accountable for any costs and therefore profits generated.

If the production manager has responsibility for ordering of all materials used in production, then these costs would be within their control. But if the purchasing responsibility is carried out centrally then this will not be the case.

#### 2 \$15

Define the demand function,  $P = a - bQ$ , where  $P$  is the price,  $Q$  is the quantity,  $a$  is calculated as the price at which the demand would be zero, and  $b$  is calculated as the change in price / the change in demand.

Calculate  $a$  and  $b$ :

$b = \text{change in price} / \text{change in quantity} = 2 / -400 = -0.005$ .

Substitute this into the equation with the known price and quantity values

$$25 = a - (0.005 \times 4,000)$$

$$a = 25 + (4,000 \times 0.005) = 45$$

The demand equation can then be stated as:  $P = 45 - 0.005Q$

Marginal revenue (MR) can be defined as  $P = a - 2bQ$ , therefore  $MR = 45 - (2 \times 0.005)Q$  or  $MR = 45 - 0.01Q$ .

For a quantity of 3,000 mats, MR can be calculated as:

$$45 - (0.01 \times 3,000) = \$15.$$

**3 Statement 1 – RI only****Statement 2 – Both****Statement 3 – ROI only**

Statement 1: RI will always improve if returns exceed the cost of capital, however ROI may not increase if the existing return is very high.

Statement 2: Projects with positive NPVs would increase shareholder wealth and should be undertaken. The conflict with both RI and ROI and NPV can arise where managers are reluctant to invest in projects with positive NPVs as these investments could cause RI and ROI to reduce (due to the increase in assets).

Statement 3: ROI being a relative measure is good for comparing divisions of different sizes, whereas RI, as an absolute measure, is not.

**4 \$600 loss**

Before further processing the sales value of cream (10,000 litres x \$1.20) = \$12,000

After further processing:

Sales value of butter (8,000 units x \$2.25) = \$18,000

Further processing costs ((10,000 litres of cream x \$0.50) + \$1,600) = \$6,600

This gives a net return of \$11,400 which is \$600 less than the sales value of cream.

**5 Stage 1 – Mission****Stage 2 – Objectives****Stage 3 – Budgets****Stage 4 – Variances**

The ultimate vision for an organisation will inform its mission, the reason for its existence. From this it will then be able to develop specific objectives to enable it to achieve this mission.

Budgets are a quantified plan that will show how an organisation is planning to deliver its objectives. Variances provide the detailed monitoring of actual results against the budget.

## 6 Normal loss = Potentially hidden costs

### Abnormal loss = Conventional costs

In this question, normal loss costs are spread over good units of production thus losing their identity and being lost and **potentially hidden**.

Abnormal losses are reported separately in results so are like **conventional** costs of material, energy etc.

Note: the numbers given in the question are for illustration only and are not required to answer the question.

## 7 C

An assumption of simple linear regression is that what happened in the past will continue into the future. Therefore, C is true.

Interpolation means forecasting within the range of the original data whereas extrapolation means forecasting outside the range of the original data. Forecasting within the range is more reliable because there is data to back up the forecast. It is more difficult to be sure what the results will be if they are outside the range recorded in the past. Therefore, A is false.

Simple linear regression assumes that the dependent variable is only affected by one independent variable. Therefore, B is false.

Simple linear regression can assist in forecasting when there is correlation between two variables. It can be positive or negative correlation. Therefore, D is false.

## 8 Statement 1 – True

### Statement 2 – False

### Statement 3 – True

Statement 1: The theory of constraints specifies that a small amount of buffer inventory should be maintained prior to the bottleneck activity so that the bottleneck never has to be slowed down or delayed.

Statement 2: Operations prior to the bottleneck should operate at the same speed as the bottleneck so that the use of the bottleneck is optimised. If it is operated at a faster level then this will result in a build-up of WIP.

Statement 3: Minimising conversion costs and investment costs reduces capital tied up in slow-moving inventory and prevents wasting resources.

**9 Stage 1 – Develop the product concept****Stage 2 – Set the selling price****Stage 3 – Determine the profit margin****Stage 4 – Cost the product****Stage 5 – Identify the cost gap****Stage 6 – Use functional and value analysis**

In target costing, once a product concept has been developed, the company will take this to the market and use the feedback gathered to set the selling price.

The company will then apply its required profit margin to this selling price and calculate the target production cost. This is the maximum cost which the company can incur in the production of the product and still earn the required margin.

This target cost is then compared to the calculated cost of production and any cost gap is identified. The company must then use techniques such as functional and value analysis in order to close the cost gap.

**10 Statement 1 – Leading indicators****Statement 2 – Lagging indicators****Statement 3 – Leading indicators****Statement 4 – Lagging indicators**

Leading indicators drive future financial success. These are usually focused on internal aspects of the business that, if operating well, will ensure future profitability.

Lagging indicators show the effect of decisions once they are made and are often the financial consequences of internal activities.

**11     \$13.55**

Total variable cost per laptop bag is:

		<b>\$</b>
Material A	1.1 kg x \$3.00	3.30
Material B	0.5 kg x \$2.50	1.25
Labour	0.5 hours x \$12	6.00
Variable overheads	0.5 kg x \$2	1.00
<b>Total variable cost</b>		<b>11.55</b>

Fixed overheads are given at a total level so need to be absorbed into the total units produced. A fixed overhead absorption rate is calculated, for kg of material A as stated:  
 $= \$10,000 / (1.1 \times 5000) = \$1.82$  per kg.

The fixed overhead per unit is then calculated as  $\$1.82$  per kg x 1.1 kg =  $\$2.00$  per laptop bag.

The standard full cost per laptop bag is therefore  $\$11.55 + \$2.00 = \$13.55$ .

**12     Division A manager – Maximax****Division B manager – Minimax regret****Division C manager – Expected value**

Division A manager: the maximax technique is used by optimistic or risk-seeking managers and focuses on choosing the best possible (maximum) payoff.

Division B manager: this manager wants to minimise the chance of future regret. The minimax regret method compares each project and calculates the 'regret' of not having chosen the best option. The manager then chooses the project with the smallest possible worst-case regret.

Division C manager: expected value (EV) uses the probabilities of outcomes to calculate the most likely result of each project, and this manager is risk-neutral so will make decisions based on the most probable best outcome.

**13 A and B**

The internal business process perspective will consider aspects of the business which are internal to the organisation. The customer satisfaction perspective focuses on measures which are largely external. Therefore, A is true.

By including measures which consider the causes of an organisation's success, such as efficient internal processes and innovation, it will ensure that leading indicators are captured in the assessment of performance. Leading indicators give a view to long-term performance. Therefore, B is true.

The Balanced Scorecard (BSC) focuses primarily on shareholders and customers, so it cannot be said to consider ALL stakeholders. It would not consider stakeholders such as regulators or local communities as those are not captured by any of the four perspectives. Therefore, C is false.

The BSC can be applied to all types of organisation, with no particular benefit for service organisations. Therefore, D is false.

**14 C**

Cost-volume-profit (CVP) analysis assumes a constant selling price per unit and a constant variable cost per unit, therefore there would be a constant contribution per unit. Therefore, C is true.

Fixed costs are assumed to be constant in total. It is the fixed cost per unit which will decrease with output. Therefore, A is false.

CVP analysis assumes a constant selling price, therefore there is no need to reduce the price to increase demand. Therefore, B is false.

CVP analysis is more suited as a short-term planning tool as the assumption is that nothing is constant in the long-term. Therefore, D is false.

**15 \$480**

3,000 brake pads should use 0.8 kg each  $(3,000 \times 0.8) = 2,400$  kg

3,000 brake pads did use  $(1,320\text{kg} + 650\text{kg} + 310 \text{ kg}) = 2,280$  kg

Difference = 120 kg favourable

Valued at \$4.00 per kg  $(\$3.20/0.8 \text{ kg})$

Variance = \$480 favourable

## Section B

### 16 B

Phonacc has a stated aim of profit maximisation. To achieve this the objective to be maximised in the linear programming formulation is equal to the total contribution.

	<b>Earbuds (E)</b>	<b>Headphones (H)</b>	<b>Wireless chargers (W)</b>
	<b>\$</b>	<b>\$</b>	<b>\$</b>
Selling price	50.00	75.00	65.00
Less variable costs:			
Materials: casing	10.00	20.00	15.00
Materials: components	6.60	11.00	8.80
Direct labour	5.40	9.00	4.50
Variable OH	1.80	3.00	1.50
<b>Contribution</b>	<b>26.20</b>	<b>32.00</b>	<b>35.20</b>

The total contribution will be =  $26.2E + 32H + 35.2W$

### 17 Components constraint = $3E + 5H + 4W \leq 5,000$

#### Demand for wireless chargers = $W \leq 560$

Components: The availability of components is restricted to 5,000 kg. It is necessary to represent the constraint in terms of kg. The cost of one unit for E (earbuds) is \$6.60, which is equal to 3 kg at a price of \$2.20 per kg. The same conversion is done for H (headphones) to get 5 kg and W (wireless chargers) to get 4 kg.

Hence, expressed algebraically the total usage of components, in kg, will equal  $3E + 5H + 4W$ . This cannot exceed the 5,000 kg available, hence the  $\leq 5,000$ .

Wireless chargers : The demand for wireless chargers is given as 560 units in the month. Hence, the number of wireless chargers to be produced, W, cannot exceed 560 units as there would be no point in producing items which would not be sold. This leads to an expression of  $W \leq 560$ .

**18     \$19,752**

The optimal production plan will deliver a maximum contribution equal to the value of the objective in the output = \$35,152.

To reach profit it is necessary to deduct the total fixed costs for the month (based on expected monthly demand):

$$= (\$12 \times 400) + (\$20 \times 250) + (\$10 \times 560) \\ = \$15,400.$$

Hence, profit = \$35,152 – \$15,400 = \$19,752.

**19     Statement 1 – Correct**

**Statement 2 – Incorrect**

**Statement 3 – Correct**

Statement 1: the shadow price of casing is given in the output as 8.00, which means this statement is correct.

Statement 2: there is a slack of direct labour time equal to 22.5, so it has not all been used so this statement is incorrect.

Statement 3: the optimal production of wireless chargers is 560 units, which will equal the demand, so this statement is correct.

**20     D**

Both statements are false.

Simplex linear programming identifies the optimum number of units of each product to produce, not the optimum selling price.

Simplex linear programming can be used to solve problems where any number of resources are limited. If there is only a single limiting factor it is not necessary to use simplex linear programming, but it is possible to do so and it will provide the optimal production plan.

**21 D**

	<b>Gamepads (units)</b>
Opening inventory	3,600
Quarterly sales	15,000
Closing inventory (1/3 of 15,000)	5,000
<b>Quarter 1 production</b>	<b>16,400</b>
Units per batch	200
<b>Number of batches = set-ups</b>	<b>82</b>
Cost per set-up	\$80
<b>Total cost of set-ups</b>	<b>\$6,560</b>

**22 \$5.59**

Cost per quality control inspection including salary increase =  $\$260 \times 1.075 = \$279.50$

	<b>Joysticks (units)</b>
Number of units produced	18,000
Number of quality control checks (18,000 / 50)	360
Total cost of quality control checks (360 x \$279.50)	\$100,620
<b>Quality control cost per unit (\$100,620/18,000)</b>	<b>\$5.59</b>

Alternative calculation:

Quality control inspections take place every 50th controller, so cost per unit =  $\$279.50 / 50 = \$5.59$ .

**23 A**

High-low method is required to separate variable and fixed delivery costs:

Variable costs: $(\$75,950 - \$67,200) / (325 - 200) = \$8,750 / 125$	\$70 per delivery
Total deliveries (same as orders) (18,000/100)	180
Total variable cost	<b>\$12,600</b>

**24 Machine set-ups = Rise****Budgeted costs = Increase**

The batch size will decrease and so the number of machine set-ups will rise. This will mean that the budgeted cost of one joystick will increase if all other costs remain unchanged.

The batch size has decreased from 450 to 300 units produced in each batch.

A smaller batch size will mean that more batches are required to produce the same budgeted production, and hence the number of machine set ups will rise.

As more machine set-ups take place this will result in an increase in the machine set-up cost which is budgeted for the joystick.

**25 Statement 1 – Correct****Statement 2 – Incorrect****Statement 3 – Correct**

Statement 1: ABB utilises knowledge of the activities which cause overhead costs to be incurred. Basing the budget on these cost drivers will lead to a more accurate budget for the future than an incremental budgeting approach.

Statement 2: ABB is most relevant in situations where there is a wide range of products with differing production methods and times.

Statement 3: ABB requires detailed knowledge of the activities, drivers, cost driver rates and prediction for these drivers, which will be expensive to obtain in an organisation which has not used this approach before.

**26 35.61%**

All monetary amounts are in \$'000.

Revenue = \$520 + \$480 + \$500 + \$620 = \$2,120

Operating profit = \$180 + \$175 + \$180 + \$220 = \$755

Operating profit margin =  $\$755/\$2,120 = 35.613\%$  rounded to 35.61% to 2 decimal places.

**27 Statement 1 – Challenge****Statement 2 – Not a challenge****Statement 3 – Challenge**

Statement 1: it may be difficult to objectively measure staff morale as it is a qualitative measure which is difficult to quantify. Different members of staff may have a different idea about what a “level 7” satisfaction means for example.

Statement 2: a significant number of respondents will provide a more robust view of staff satisfaction, so will provide better data for interpretation.

Statement 3: the data is likely to be unreliable as it was collected at an event aimed to increase staff satisfaction. If it had been collected on a standard working day the scores may have been different.

**28 90.32%**

The labour efficiency ratio is calculated as:  
(standard labour hours/actual labour hours) x 100

Labour hours worked = 7,750 (from dashboard)

Standard labour hours:

<b>Machine type</b>	<b>Machines produced</b>	<b>Standard labour hours per machine</b>	<b>Total standard labour hours</b>
XRT750	500	5	2,500
SRT500	900	4	3,600
BRT250	300	3	900
			<b>7,000</b>

Labour efficiency =  $(7,000/7,750) \times 100 = 90.323\%$  rounded to 90.32%

**29 Statement 1 – False****Statement 2 – False****Statement 3 – True**

Statement 1:

	<b>Quarter 2</b>	<b>Quarter 3</b>	<b>Quarter 4</b>
Sales	480	500	620
Gross profit	201	205	250
Gross profit margin	41.88%	41.00%	40.32%

Whilst the absolute gross profit is improving from quarter 2 to quarter 4, the gross profit margin is not.

Statement 2: the downtime is more likely to be as a result of the defects occurring, so the machines would be stopped to investigate. When the machines are down, nothing is being produced.

Statement 3: an improvement in these measures is likely to improve profitability as defect costs and labour costs would decrease. It is possible that revenue would also be improved as greater level of production may be possible if machine downtime were reduced. However, this would depend on demand.

**30 D**

Using only financial performance indicators can lead to a short-term view of company performance as the causes of long-term success will not be considered, statement 1 is incorrect.

It is the use of non-financial performance indicators, in addition to financial performance indicators, which can provide a wider holistic view of the performance of an organisation, at present and in the future, so statement 2 is incorrect.

Optimal business decisions are likely to be made if non-financial performance indicators are included alongside financial performance indicators because a more comprehensive analysis of the decision can be undertaken.

## Section C

31

(a)

The life-cycle cost and profit are **\$160,100** and **\$9,813**, respectively.

	20X2	20X3	20X4	20X5	20X6	20X7	20X8	Total
	Jan-Dec	Jan-Dec	Jan-Dec	Jan-Dec	Jan-Dec	Jan-Dec	Jan-June	
	\$	\$	\$	\$	\$	\$	\$	\$
Consultant	20,000							20,000
Administration support <sup>1</sup>	12,000	12,000	6,000					30,000
Procurement <sup>2</sup>	2,600							2,600
Equipment		75,000						75,000
Installation		7,500						7,500
Maintenance <sup>3</sup>			2,250	2,250	2,250	2,250		9,000
Marketing		10,000						10,000
De-installation							6,000	6,000
<b>Total cost</b>	<b>34,600</b>	<b>104,500</b>	<b>8,250</b>	<b>2,250</b>	<b>2,250</b>	<b>2,250</b>	<b>6,000</b>	<b>160,100</b>
Energy savings <sup>4</sup>		15,000	31,500	33,075	34,729	36,465	19,144	169,913

[Note: the figures are shown on an annual basis for clarity. This layout is not essential as the requirement is for total life-cycle cost and profit only.]

**Workings:**

1. The first year of Phase 2 ends on 30 June 20X4
2.  $\$52,000 \times 10\% \times 50\% = \$2,600$
3.  $3\% \times \$75,000$  starting on 30 June 20X4 = \$2,250
4. Energy savings begin at the start of Phase 2 on 1 July 20X3; therefore, six months savings are included in that year:

$$20X3 = 50\% \times \$0.50 \times 60,000 = \$15,000$$

$$20X4 = 100\% \times \$0.50 \times 1.05 \times 60,000 = \$31,500$$

$$20X5 = \$31,500 \times 1.05 = \$33,075$$

$$20X6 = \$33,075 \times 1.05 = \$34,729$$

$$20X7 = \$34,729 \times 1.05 = \$36,465$$

$$20X8 = 50\% \times \$36,465 \times 1.05 = \$19,144$$

**(b)**

EC should undertake the project.

Despite only making a profit of \$9,813 over the entire lifecycle, the company values suggest that sustainability initiatives should be used wherever possible. Given that all suppliers are sustainable, they may choose not to be associated with EC if it did not develop sustainable practices such as this.

Additionally, no consideration has been given towards any enhancement in brand as a result of this, or any damage to brand should the project not go ahead.

**(c)****Data collection challenges**

Life-cycle costing is a costing method using only financial costs and benefits, and hence it may encounter difficulties when it comes to placing a financial value to some of the environmental costs or benefits in a project such as this. For example, the value which should be put on the company having a lower carbon footprint, whether that be the value to the environment or, at a lower level, the value to EC's brand, is hard to quantify.

No consideration has been given to some environmental costs such as:

- any waste created by replacing current systems
- the environmental impact of using rare earth resources within the smart technologies

## Cost prediction challenges

Whilst the collection of data such as the consultant fees and management costs are likely to be fairly reliable, many of the costs and benefits occur in the future and as such are more difficult to predict. For example, the cost of equipment and installation cannot be known until the consultant has made their recommendation and the suppliers have been sourced. This is already one year into the project.

EC is using information provided by its manufacturers to estimate the likely cost of the equipment, but they may not be willing to fully share information, or indeed it may be out of date. For example, if they were early adopters of smart technology, they may have paid more for it. It is also difficult to ascertain how similar the needs of EC and the manufacturers are and if the same technology would be appropriate for both.

Additionally, some of the costs are forecast based on current prices, for example the cost of 1 kWh of energy. Should environmental issues become more prevalent, energy costs may increase at a faster rate than the estimated 5%, thus meaning the project would be more profitable.

The assumptions relating to the reduction in energy consumption arising from the installation of the new smart technologies drive this project. These assumptions will not be able to be verified until the monitoring activity takes place after the start of Phase 2.

**32****(a)****Standard contribution**

			<b>Cost per bag (\$)</b>
Leather	0.75 metres	\$8.60 per metre	6.45
Rubber	0.2 metres	\$6.20 per metre	1.24
Labour	3.5 metres	\$16.00 per hour	56.00
Variable overhead	3.5 hours	\$4.30 per hour	15.05
			<b>78.74</b>

Standard contribution = \$129 – \$78.74 = \$50.26

Alternative calculation:

Standard contribution = budgeted contribution/budgeted sales units

= \$603,120/12,000 = \$50.26

**(i) Actual sales volume**

(Actual volume – budgeted volume) x standard contribution = \$40,208

Actual volume – budgeted volume = \$40,208/\$50.26 = 800

Actual volume = 12,000 + 800 = **12,800 bags**

**(ii) Actual material usage – leather**

[Actual quantity – (std quantity x actual output)] x standard price = \$16,512

[Actual quantity – (0.75 x 12,800)] x \$8.60 = \$16,512

Actual quantity = \$16,512/\$8.60 + (0.75 x 12,800) = 11,520

Per bag = 11,520/12,800 = **0.90 metres per bag**

**(iii) Actual labour rate**

Actual hours x (actual rate – standard rate) = \$163,840

40,960 x (actual rate – \$16) = \$163,840

Actual rate = \$163,840/40,960 + \$16 = **\$20 per hour**

**(iv) Actual total variable overhead expenditure**

Actual hours x (Standard rate – Actual rate) = \$8,192 (Favourable)

(\$4.30 – Actual rate) = \$8,192/40,960

Actual rate = \$4.30 – (\$8,192/40,960) = \$4.10

Actual rate x actual number of hours = \$4.10 x 40,960 = **\$167,936**

**(b)**

Overall, the performance of HGB was disappointing with actual contribution in quarter 1 being \$306,032 under budget. The main areas contributing to this are sales and labour.

Sales variances were \$215,792 adverse. This was mainly down to an adverse price variance of \$256,000, suggesting that the actual selling price was \$109 compared to the standard price of \$129. ( $\$129 - (\$256,000/12,800)$ ). There is no indication why the price was lower by 15.5%. If this was a deliberate action to increase sales, it was not successful as sales volumes were only 800 units above budget.

The labour rate variance was \$163,840 adverse suggesting that a much higher labour rate was paid than the standard rate of \$16. The actual labour rate was \$20, 25% higher than standard. Most staff have been with HGB for over five years so may be being paid a premium for their loyalty to the company. While there is a favourable efficiency variance, it is only \$61,440 therefore the higher wage rate is not translating into a corresponding level of saving from higher efficiency.

The standard setting process at HGB needs to be reviewed in relation to the labour rate as, if staff are long serving then their wage rate should be known with more accuracy, unless there was a substantial increase in the wage rate in this quarter which was not anticipated.

There is an overall adverse materials variance of \$12,544. The variance for rubber was \$8,704 adverse, while the leather had an overall adverse variance of \$3,840. The leather has been acquired for a lower price, but this could be due to the material being a lower quality and the usage variance is adverse, which could also be as the result of a lower quality material as it could be harder to work with. This lower quality could explain the need for HGB to reduce the selling price of the bags. Given that the business is known for its high-quality bags this is not a pattern which should be repeated as it may damage the brand's reputation.

**(c)****Marketing manager's views**

The marketing manager is correct that variances only relate to financial information. This is one of the known limitations of variance analysis.

As sustainability is a critical success factor for HGB, it follows that there should be KPIs associated with this. These are not going to be found in a variance report, unless it relates to the financial costs of sustainability initiatives, but this would be insufficient to prove sustainable business is being achieved. Therefore, it is important that HGB maintains other performance measurement systems alongside variance analysis.

Indeed, variance analysis is becoming less relevant due to rapidly changing environments. Whilst it remains necessary to monitor and act on control issues, it is

important that HGB recognises the need to change standards as the environment changes, and to adopt other performance measures for non-financial factors.

The marketing manager quite correctly states that the market share information is not accessible through variance analysis. HGB has increased its sales beyond budget, but from the information provided, there is no way of knowing whether this has also increased market share or whether it reflected a reduction, if the market has grown at a faster rate.

### **Production manager's views**

The production manager is right to be concerned about quality. A focus on variances could have a negative impact on quality. For example, a drive to reduce material prices may lead to lower quality material being purchased. This could affect customer perception as well as the durability of the bags.

## Mark scheme

### Section A

Questions 1 – 15 (all questions worth two marks)

**Maximum 30 marks**

### Section B

Questions 16 – 30 (all questions worth two marks)

**Maximum 30 marks**

### Section C

#### Question 31

<b>a</b>	Life-cycle cost calculation:	
	- Consultants fees	0.5
	- Administration support – two full years	0.5
	- Administration support – six months	0.5
	- Procurement – inclusion in life-cycle cost	0.5
	- Procurement – proportion for six months	0.5
	- Equipment purchase	0.5
	- Equipment installation	0.5
	- Maintenance	1
	- Marketing	0.5
	- De-installation	0.5
	- Total life-cycle cost	0.5
	- Energy savings:	
	Use of 60,000 kWh	0.5
Annual increase	0.5	
Half year/full year benefits in correct years	1	
- Total life-cycle profit	1	
<b>Maximum 9 marks</b>		
<b>b</b>	Recommendation with justification	3
<b>Maximum 3 marks</b>		
<b>c</b>	Each assess point in context for EC – up to 2 marks each, including:	
	Data collection:	2
	- Valuing environmental costs/benefits (carbon footprint, reduction, brand)	2
	- Costs which are not included, such as waste, rare natural resources	
	Cost prediction:	2
	- Reliability of data varies	2
- Inaccurate forecasts	2	

	- Assumptions	
<b>Maximum 8 marks</b>		
<b>Total 20 marks</b>		

**Question 32**

<b>a</b>	Actual sales volume	2
	Actual usage of leather	2
	Actual labour rate	2
	Actual total variable overhead expenditure	2
<b>Maximum 8 marks</b>		
<b>b</b>	Analysis of performance – 1 mark per relevant point (up to 2 marks if the point draws out appropriate linkages), including:	
	- Overall disappointing performance	1-2
	- Higher labour efficiency does not outweigh the rate increase	1-2
	- Price of leather reflecting its lower quality	1-2
	- Impact of final product quality and hence selling price	1-2
<b>Maximum 7 marks</b>		
<b>c</b>	Assessment of validity of comments – up to 2 marks each, including:	
	Marketing manager:	
	- Lack of measure of sustainability	2
	- Rapidly changing environments	2
	- Market share information not accessible	2
Production manager:		
- Potential adverse impact on quality	2	
<b>Maximum 5 marks</b>		
<b>Total 20 marks</b>		