



12 Pages

1. Please give the information requested in the boxes below.
2. Enter your name in the space provided to the right, fold over and seal down (using the label provided) to hide your name.
3. The answers must be legibly written. The Examiners can either ignore illegible script or have it typed and the expense of typing charged to the candidate.
4. Write your answers in ink.
5. Begin each answer on a fresh page. Do all rough work in the answer book and cross it through.
6. No part of this book is to be torn out; it must be handed in complete.
7. If more books than one are used, fasten them together using the tags available from the invigilator(s).
8. **Every book must be handed in. In no circumstances may answer books, used or unused, be taken out of the examination venue.**

Complete, fold and seal
(see note 2 below)

SURNAME:

Chartier - Roberts

FORENAME(S):

Gauvain Jury

1	Student Number	~~Chak 6833384~~ 603334/1
2	Title of Examination Paper	Management, Innovation & Sustainability
3	Module Code	GEAC5004-003
4	Date and Time of Examination	14 th MAY 2018 A.M
5	Examination Venue	Main hall Gower College
6	Seat Number	15
7	Number of Answer Books handed in	

List the numbers of the questions you have attempted	Office Use
1	17
2	21
3	12
Total	50%

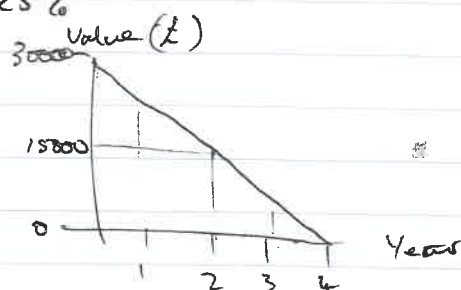
(Gweler yr ochr arall am y fersiwn Cymraeg)

Q1

a) Straight line method @ 25%/yr
Full price $\rightarrow$ 3 years

Start $\xrightarrow{\text{Yr 1}} \xrightarrow{\text{Yr 2}} \xrightarrow{\text{Yr 3}}$
£30000 $\xrightarrow{-25\%} \xrightarrow{-25\%} \xrightarrow{-25\%}$

	Value (£)
Initial value	30000
after: Yr 1	22500
: Yr 2	15000
: Yr 3	7500



Depreciation is £7500/year at 25%/yr using the straight line method, so the final value of his assets is £7500 after 3 years.

b) Reducing balance method @ 25%/yr

	Value (£)	Depreciation (£)
Initial value	30000	0
after Yr 1	22500	7500
Yr 2	16875	5625
Yr 3	12656.25	4218.75

The final value of his assets after 3 years is £12656.25 using the reducing balance method.

c) The straight line method is a straightforward way of calculating depreciation in a linear fashion, however it finishes with assets having zero or scrap value at the end. It allows a constant reduction in tax liability.

The reducing balance method has a high initial drop in asset value, advantageous for tax purposes, but the amount lessens as time goes on. However,

cost $\rightarrow$ assets retain a higher percentage of their initial value and can be sold at a level which has a favourable affect on accounting.

d) Fixed costs: £30000
238 tyres/month

Variable costs: £57/tyre

Selling price: £75/tyre

} + £18/unit

$$57 \times 238 = £13566 \quad - \text{total variable costs/month}$$

$$75 \times 238 = £17850 \quad - \text{total selling value/month}$$

Break even point

$$(b-c) \times x = 30000 + c$$

$$75 - 57 \times x = 30000 + 57 \quad \text{units} = \frac{30000 + 57}{18} = 1669.83$$

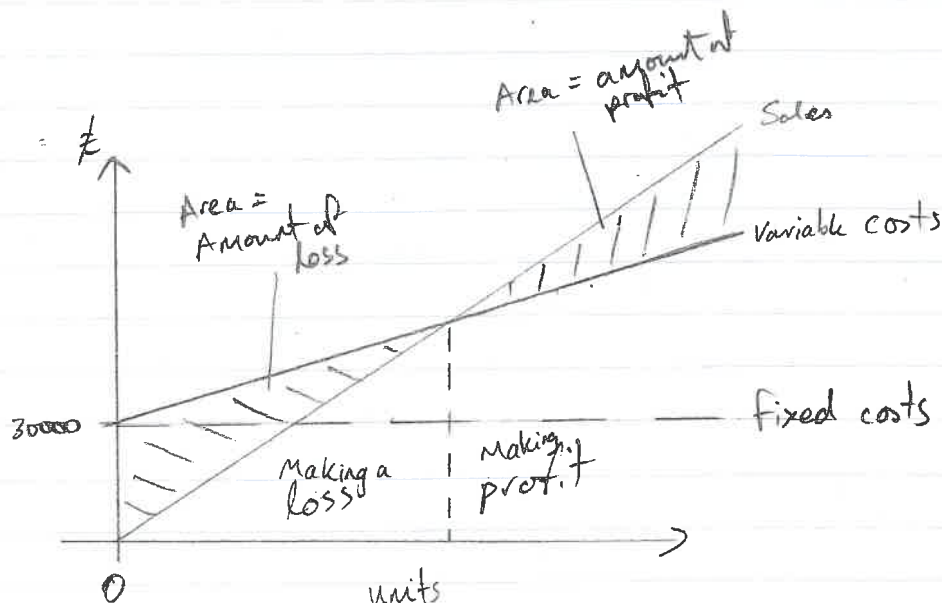
Round up to 1670.

$$1670 \text{ units at } £75 = £125250$$

$$1670 \text{ units at } £57 = £95190 + 30000 = £125190$$

$\therefore$ Mr W needs to sell 1670 tyres at £75 to break even (cover his fixed costs, plus variable costs of £57/tyre).

e



17d

Section B

PLANNING SECTION

22/a)

1. ^{establish} Need for change
2. Vision for change - ^{bring on} people
3. Communicate needs/vision
4. Small goals - achievable
5. Evaluation
6. Celebrate wins
7. Reward successes
8. Make it stick

Failure

Resistant to change
 Inertia, lack of communication
 No buy-in, ^{meaningful} input
 Too ambitious, targets not being met, loss of vision and direction, no reward, criticisms not taken seriously,

a) 1. There needs to be an established need for change. There may be a variety of needs based on such things as changes in the marketplace, staff turnover, automation and technological changes, legislative or regulatory changes. There may be internal or external (or both) pressures. By identifying and making these needs concrete and tangible, the process of change can be made easier.

2. The vision for change needs to be thoroughly communicated to everyone involved, and this involves bringing people together first to form the vision. Once the need for change has been established, there needs to be some defined leadership managing it. For this to succeed, it is best to form a group of people from across the company who can get on board and bring different perspectives together.

3. The key at this point is clear, regular and meaningful communication with all staff, with an opportunity

for feedback and input to be given. The vision must be clear and defined so that doubt and fears may be allayed. Persistence is the key at this stage.

4. As the change begins, it is important to have small, achievable goals set which represent tangible milestones for all involved. Changes need to be seen as being successful, but now is also the time to evaluate progress and ensure that there are no areas slipping behind that may endanger the process as a whole.

5. Celebrating success and rewarding those successes can cement changes in ^{new} behaviour and routines. Contrasting with the previous culture can help bring on recalcitrant staff who might still feel resistance.

6. Making the changes stick means reinforcing all the changes with positivity, taking on feedback or criticism and promoting the benefits.

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b) Change management programmes can fail for a number of reasons, ~~but~~ particularly if the process is not guided, nor presented as beneficial. Humans are resistant to change, and company structures can exist that might seem impossible to change. Overcoming this inertia for long term success presents many opportunities for failure. Failure to communicate: This can happen at any stage, so without any communication,

staff will feel lost or see no point in helping with the changes. Staff need to know that they have some role to play, and without an opportunity to contribute ideas & feedback staff will feel little incentive to buy-into the change.

The scale of change can also be too ambitious, with a grand plan falling apart as the vision fails to materialise. Without smaller, measurable successes and milestones being completed in a timely fashion, the impetus for change will be lost.

Change also needs to be driven by a leadership group that understands how the planned changes will affect various departments and staff etc. Without a vision that takes these disparate viewpoints and positions into account, the process will meet resistance.

Change may fail if the original conditions precipitating change alter - this may be a shift in interest rates/inflation or competition changes in the marketplace.

Change can fail if goals and milestones are met without fanfare or acknowledgement - without reminders that the changes are working or are beneficial, momentum will be lost. This could be perceived as a lack of follow-through by management on their intentions, and that change isn't really a serious endeavor.

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Q3

75 gauges
8 hrs each
£105 materials

Overhead costs

$$\begin{array}{rcl}
 \text{Indirect} & = & £2500 \\
 \text{Deprec} & = & 4000 \\
 \text{Rent} & = & 6000 \\
 \text{Heat/light} & = & 4000 \\
 \text{Ind. Mats} & = & 17000 \\
 \hline
 & & \textcircled{£33500}
 \end{array}$$

Direct labour cost per hour

$$\frac{70000}{6000} = £11.66 \text{ per hour } \times$$

Direct labour cost per unit

$$£11.66 \times 8 = £93.33 \checkmark$$

Overhead costs per unit

$$\frac{33500}{75} = £446.66$$

Materials cost for 75 units

$$75 \times £105 = £7875 \checkmark$$

∴ Each unit cost =

$$\begin{aligned}
 & £93.33 \text{ direct labour} + £446.66 \text{ overhead costs} + £105 \text{ materials} \\
 & = £644.99 \text{ per unit.}
 \end{aligned}$$

Total manufacturing cost =

$$75 \times £644.99$$

$$= £48374.25 \times$$

b

Total cost + 25% = Quoted price

$$\therefore £48374.25 \times 1.25 = \underline{\underline{£60467.81}} \times$$

$$\left(\begin{array}{l} \therefore \text{Profit at 25\%} \\ = 60467.81 - 48374.25 \\ = £12093.56 \end{array} \right) \times$$

c

1) Reduce profit margin by ~~reducing~~ reducing the quote to $(60467.81 \times 0.9) £54421$.

This 10% cheaper quote means a reduction in profit to £6046 - essentially halving the profit. This is the quickest and easiest way of stabilising the conditions, but in future Deverwall's quotes might be expected to be cheaper.

2) Reduce the cost of direct labour. Sure to be an unpopular measure, labour costs ~~would~~ would have to fall from £70000 to £63954, which would see hourly rates fall from £11.66 to £10.65 per hour. This might back-fire and result in longer manufacturing times.

3) The only other option is to spend less time on manufacturing, potentially supplying products

that are not built to a high standard - which could be problematic given that the gauges are meant to be high-precision.
518th hours would have to be lost to cover the £6046 - an 8.6% drop. ✓

My preference would be option 1 - reduce the profit margin. This requires no loss of pay for employees, nor does it mean sacrificing quality of the product. Guaranteeing the business is more important in the long term, and for future sales/maintenance etc. ✓

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